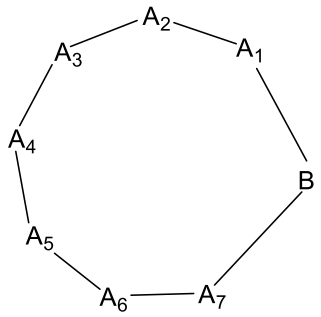
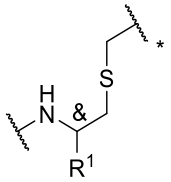
CLAIMS

1. A polypeptide compound, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is a compound represented by formula I; wherein A_1, A_2, A_3, A_4, A_5, A_6 and A_7 are sequentially connected via a peptide bond (-CO-NH-);

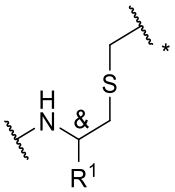


I

A_7 has a structure represented by formula a-7,

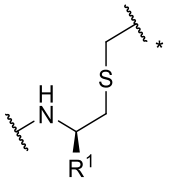


a-7



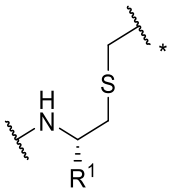
a-7

"&" denotes that the carbon atom herein is a chiral carbon, that is, is



a-7-1

and/or



a-7-2

; "*" end denotes attachment to B;

R^1 is $-(CH_2)_mM$;

m is 1, 2, 3, 4, 5 or 6;

M is $-COR^{1-1}$ or $-NR^{1-2}R^{1-3}$;

R^{1-1} is -OH, $-NR^aR^b$, $-OC_{1-12}$alkyl, $-OC_{3-12}$cycloalkyl, $-OC_{6-10}$aryl, -O-5-10-membered heteroaryl, a group formed by the loss of a H atom by an amino group on an amino acid, a group formed by the loss of a H atom by an amino group on a peptide formed by 2 or more amino acids,

-OC_{1-12}alkyl substituted with 1, 2 or 3 R^e, -OC_{3-12}cycloalkyl substituted with 1, 2 or 3 R^f, -OC_{6-10}aryl substituted with 1, 2 or 3 R^{e-1}, or -O-5-10-membered heteroaryl substituted with 1, 2 or 3 R^{f-1};

R^a and R^b are independently H, C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, C_{1-12}alkyl substituted with 1, 2 or 3 R^{b-1}, C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{b-2}, C_{6-10}aryl substituted with 1, 2 or 3 R^{b-3}, or 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{b-4};

R^{b-1}, R^{b-2}, R^{b-3} and R^{b-4} are independently deuterium, -OH, -NH_2, -COOH, -$CONH_2$, -CN, halogen, C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, C_{6-10}aryl substituted with 1, 2 or 3 R^{b-1-1}, 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{b-1-2}, C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{b-1-3}, or C_{1-12}alkyl substituted with 1, 2 or 3 R^{b-1-4};

R^{b-1-1}, R^{b-1-2}, R^{b-1-3} and R^{b-1-4} are independently C_{1-12}alkyl, halogen, or C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

R^e, R^f, R^{e-1} and R^{f-1} are independently halogen, -OH or -NH_2;

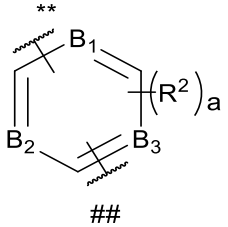
R^{1-2} and R^{1-3} are independently H, C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, -COR^g, a group formed by the loss of a -OH group by a carboxyl group on an amino acid, a group formed by the loss of a -OH group by a carboxyl group on a peptide formed by 2 or more amino acids, C_{1-12}alkyl substituted with 1, 2 or 3 R^h, C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{h-1}, C_{6-10}aryl substituted with 1, 2 or 3 R^{h-2}, or 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{h-3};

R^g is independently C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, C_{1-12}alkyl substituted with 1, 2 or 3 R^{g-1}, C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{g-2}, C_{6-10}aryl substituted with 1, 2 or 3 R^{g-3}, or 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{g-4};

R^{g-1}, R^{g-2}, R^{g-3} and R^{g-4} are independently deuterium, -OH, -NH_2, -COOH, -CN, halogen, C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, or C_{6-10}aryl substituted with 1, 2 or 3 R^{g-1-1};

R^{g-1-1} is independently -OH, -NH_2, -COOH, -CN, halogen, C_{1-12}alkyl, or C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

R^h, R^{h-1}, R^{h-2} and R^{h-3} are independently deuterium, -COOH, -CN, halogen, -OH, or -NH_2;

B is  ;

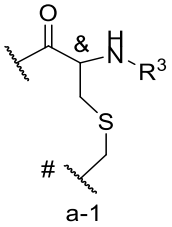
B_1, B_2 and B_3 are independently N or C;

a is 1, 2 or 3;

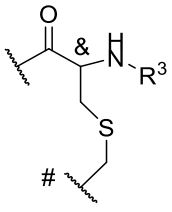
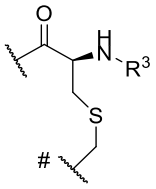
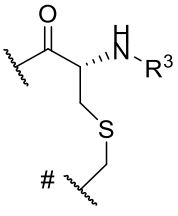
R^2 is independently H, C_{1-12}alkyl or halogen;

"**" end denotes attachment to A_7; "##" end denotes attachment to A_1;

A_1 has a structure represented by formula a-1,



a-1

"&" denotes that the carbon atom herein is a chiral carbon, that is,  is  and/or  ; "#" end denotes attachment to B;

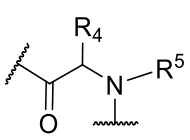
a-1-1 a-1-2

wherein R^3 is -COC_{1-12}alkyl, -$COOC_{1-12}$alkyl, -COC_{1-12}alkyl substituted with 1, 2 or 3 R^{3-1}, -$COOC_{1-12}$alkyl substituted with 1, 2 or 3 R^{3-2}, a group formed by the loss of a -OH group by a carboxyl group on an amino acid, or a group formed by the loss of a -OH group by a carboxyl group on a peptide formed by 2 or more amino acids;

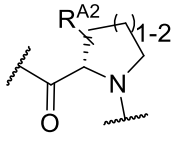
R^{3-1} and R^{3-2} are independently deuterium, -NH_2, -COOH, -CN, halogen, -OH, -$NR^{3-1-1}R^{3-1-2}$, or -OC_{1-12}alkyl;

R^{3-1-1} and R^{3-1-2} are independently H or C_{1-12}alkyl;

A_2 has a structure represented by formula a-2 or a-2-2, the nitrogen end of which is attached to A_1, and the carbonyl end of which is attached to A_3;



a-2 ,



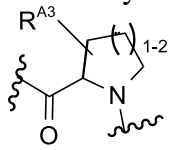
a-2-2 ,

R^4 and R^5 are independently H, C_{1-12}alkyl or C_{1-12}alkyl substituted with 1, 2 or 3 R^{4-1};

R^{4-1} is independently deuterium, -OH, halogen, $-NH_2$, or -COOH;

R^{A2} is independently H, deuterium, $-CH_3$, -OH, $-NH_2$, or F; the number of R^{A2} is 1, 2, 3 or 4;

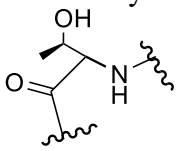
A_3 has a structure represented by formula a-3, the nitrogen end of which is attached to A_2, and the carbonyl end of which is attached to A_4;



a-3 ;

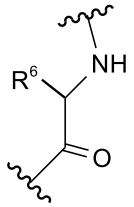
R^{A3} is H, deuterium, $-CH_3$, -OH, $-NH_2$ or F; the number of R^{A3} is 1, 2, 3 or 4;

A_4 has a structure represented by formula a-4, the nitrogen end of which is attached to A_3, and the carbonyl end of which is attached to A_5;



a-4 ;

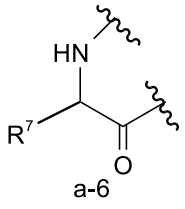
A_5 has a structure represented by formula a-5, the nitrogen end of which is attached to A_4, and the carbonyl end of which is attached to A_6;



a-5 ;

wherein R^6 is $-(CH_2)_xCOR^{6-1}$, in which x is 1, 2 or 3, and R^{6-1} is -OH or $-NH_2$;

A_6 has a structure represented by formula a-6, the nitrogen end of which is attached to A_5, and the carbonyl end of which is attached to A_7;



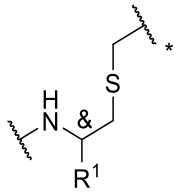
a-6 ;

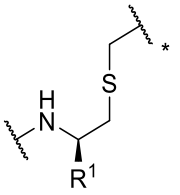
wherein R^7 is -CH_2C_{6-10}aryl, -CH_2-5-10-membered heteroaryl, -CH_2C_{3-12}cycloalkyl, -CH_2C_{6-10}aryl substituted with 1, 2 or 3 R^{7-1}, -CH_2-5-10-membered heteroaryl substituted with 1, 2 or 3 R^{7-2}, or -CH_2C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{7-3};

R^{7-1}, R^{7-2} and R^{7-3} are independently deuterium, -OH, -NH_2, halogen, -CN, C_{1-12}alkyl, or C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

in the 5-10-membered heteroaryl, the heteroatom in each 5-10-membered heteroaryl is independently selected from one or more of N, O and S, and the number of the heteroatom is independently 1, 2 or 3.

2. The polypeptide compound of claim 1, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound satisfies one or more of the following:

(1) 

a-7 is 

a-7-1 ;

(2) m is 1 or 2;

(3) R^{1-1} is -OH, -NR^aR^b, -OC_{1-12}alkyl, -OC_{3-12}cycloalkyl, -OC_{6-10}aryl, a group formed by the loss of a H atom by an amino group on an amino acid, or a group formed by the loss of a H atom by an amino group on a peptide formed by 2 or more amino acids;

(4) R^a and R^b are independently H, C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, or C_{1-12}alkyl substituted with 1, 2 or 3 R^{b-1}, C_{6-10}aryl substituted with 1, 2 or 3 R^{b-3};

(5) R^{b-1} and R^{b-3} are independently deuterium, -OH, -NH_2, -COOH, -$CONH_2$, -CN, halogen, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, or C_{6-10}aryl substituted with 1, 2 or 3 R^{b-1-1};

(6) R^{b-1-1} is independently C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

(7) R^{1-2} and R^{1-3} are independently H, C_{1-12}alkyl, -COR^g, a group formed by the loss of a -

OH group by a carboxyl group on an amino acid, or a group formed by the loss of a -OH group by a carboxyl group on a peptide formed by 2 or more amino acids;

(8) R^g is independently C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, C_{1-12}alkyl substituted with 1, 2 or 3 R^{g-1}, C_{6-10}aryl substituted with 1, 2 or 3 R^{g-3}, or 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{g-4};

(9) R^{g-1}, R^{g-3} and R^{g-4} are independently -OH, $-NH_2$, halogen, C_{1-12}alkyl, C_{6-10}aryl, or C_{6-10}aryl substituted with 1, 2 or 3 R^{g-1-1};

(10) R^{g-1-1} is independently C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

(11) R^3 is $-COC_{1-12}$alkyl, $-COC_{1-12}$alkyl substituted with 1, 2 or 3 R^{3-1}, a group formed by the loss of a -OH group by a carboxyl group on an amino acid, or a group formed by the loss of a -OH group by a carboxyl group on a peptide formed by 2 or more amino acids;

(12) R^{3-1} is independently $-NH_2$ or $-OC_{1-12}$alkyl;

(13) R^4 and R^5 are independently C_{1-12}alkyl; or the nitrogen-containing heterocycle in the structure represented by formula a-2-2 is a five-membered ring;

(14) x is 2 or 3;

(15) R^7 is $-CH_2C_{6-10}$aryl, $-CH_2C_{6-10}$heteroaryl, $-CH_2C_{3-12}$cycloalkyl, $-CH_2C_{6-10}$aryl substituted with 1, 2 or 3 R^{7-1}, or $-CH_2$-5-10-membered heteroaryl substituted with 1, 2 or 3 R^{7-2}; and

(16) R^{7-1} and R^{7-2} are independently deuterium, -OH, $-NH_2$, halogen, C_{1-3}alkyl, or C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

and/or,

wherein the polypeptide compound satisfies one or more of the following:

(1) R^{1-1} is -OH, $-NR^aR^b$, $-OC_{1-12}$alkyl, $-OC_{3-12}$cycloalkyl, a group formed by the loss of a H atom by an amino group on an amino acid, or a group formed by the loss of a H atom by an amino group on a peptide formed by 2 or more amino acids;

(2) R^{b-1} is independently C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, or C_{6-10}aryl substituted with 1, 2 or 3 R^{b-1-1};

(3) R^g is independently C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, C_{1-12}alkyl substituted with 1, 2 or 3 R^{g-1}, or C_{6-10}aryl substituted with 1, 2 or 3 R^{g-3};

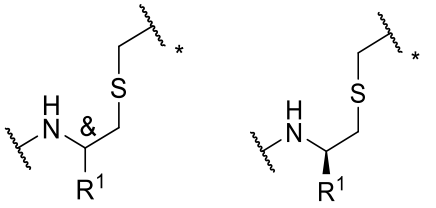
(4) R^{g-1} and R^{g-3} are independently halogen, C_{6-10}aryl, or C_{6-10}aryl substituted with 1, 2 or 3

R^{g-1-1};

(5) R^7 is -CH_2C_{6-10}aryl, -CH_2C_{3-12}cycloalkyl, or -CH_2C_{6-10}aryl substituted with 1, 2 or 3 R^{7-1}; and

(6) R^{7-1} is independently C_{1-12}alkyl substituted with 1, 2 or 3 halogen.

3. The polypeptide compound of claim 1 or 2, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein



;

m is 1 or 2;

R^{1-1} is -OH, -NR^aR^b, -OC_{1-12}alkyl, -OC_{3-12}cycloalkyl, a group formed by the loss of a H atom by an amino group on an amino acid, or a group formed by the loss of a H atom by an amino group on a peptide formed by 2 or more amino acids;

R^a and R^b are independently H, C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, or C_{1-12}alkyl substituted with 1, 2 or 3 R^{b-1};

R^{b-1} is independently C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, or C_{6-10}aryl substituted with 1, 2 or 3 R^{b-1-1};

R^{b-1-1} is independently C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

R^{1-2} and R^{1-3} are independently H, C_{1-12}alkyl, -COR^g, a group formed by the loss of a -OH group by a carboxyl group on an amino acid, or a group formed by the loss of a -OH group by a carboxyl group on a peptide formed by 2 or more amino acids;

R^g is independently C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, C_{1-12}alkyl substituted with 1, 2 or 3 R^{g-1}, or C_{6-10}aryl substituted with 1, 2 or 3 R^{g-3};

R^{g-1} and R^{g-3} are independently halogen, C_{6-10}aryl, or C_{6-10}aryl substituted with 1, 2 or 3 R^{g-1-1};

R^{g-1-1} is independently C_{1-12}alkyl substituted with 1, 2 or 3 halogen;

R^3 is -COC_{1-12}alkyl, -COC_{1-12}alkyl substituted with 1, 2 or 3 R^{3-1}, a group formed by the loss of a -OH group by a carboxyl group on an amino acid, or a group formed by the loss of a -OH

group by a carboxyl group on a peptide formed by 2 or more amino acids;

R^{3-1} is independently $-NH_2$ or $-OC_{1-12}$alkyl;

R^4 and R^5 are independently C_{1-12}alkyl; or the nitrogen-containing heterocycle in formula a-2-2 is a five-membered ring, and R^{A2} is independently H, deuterium, $-CH_3$, -OH, $-NH_2$, or F; the number of R^{A2} is 1, 2 or 3;

x is 1 or 2;

R^7 is $-CH_2C_{6-10}$aryl, $-CH_2C_{3-12}$cycloalkyl, or $-CH_2C_{6-10}$aryl substituted with 1, 2 or 3 R^{7-1};

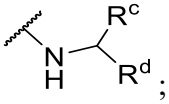
R^{7-1} is independently C_{1-12}alkyl substituted with 1, 2 or 3 halogen.

4. The polypeptide compound of claim 1 or 2, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound satisfies one or more of the following:

(1) in R^{1-1}, the C_{1-12}alkyl in the $-OC_{1-12}$alkyl is C_{1-6}alkyl;

(2) in R^{1-1}, the C_{3-12}cycloalkyl in the $-OC_{3-12}$cycloalkyl is C_{3-6}cycloalkyl;

(3) in R^{1-1}, the C_{6-10}aryl in the $-OC_{6-10}$aryl is phenyl or naphthyl;

(4) in R^{1-1}, the group formed by the loss of a H atom by an amino group on an amino acid is ;

R^c is $-(CH_2)_oCOOH$ or $-(CH_2)_pCONH_2$;

o and p are independently 0, 1, 2, 3 or 4;

R^d is hydrogen, deuterium, C_{1-12}alkyl, C_{3-12}cycloalkyl, C_{6-10}aryl, 5-10-membered heteroaryl, C_{1-12}alkyl substituted with 1, 2 or 3 R^{d-1}, C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{d-2}, C_{6-10}aryl substituted with 1, 2 or 3 R^{d-3}, or 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{d-4};

R^{d-1}, R^{d-2}, R^{d-3} and R^{d-4} are independently C_{1-12}alkyl, C_{3-12}cycloalkyl, or C_{6-10}aryl;

(5) in R^{1-1}, the peptide formed by 2 or more amino acids is a peptide formed by 2 to 20 amino acids;

(6) in R^a and R^b, the C_{1-12}alkyl or the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 R^{b-1} is independently C_{1-6}alkyl;

(7) in R^a and R^b, the C_{3-12}cycloalkyl is independently C_{3-6}cycloalkyl;

(8) in R^a and R^b, the C_{6-10}aryl is independently phenyl, biphenyl or naphthyl;

(9) in R^a and R^b, the number of the heteroatom in the 5-10-membered heteroaryl is 1 or 2;

(10) in R^{b-1}, the C_{3-12}cycloalkyl is independently C_{3-6}cycloalkyl;

(11) in R^{b-1}, the C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{b-1-1} is independently phenyl or naphthyl;

(12) in R^{b-1}, the 5-10-membered heteroaryl is independently 5-6 membered heteroaryl;

(13) in R^{b-1}, the number of the heteroatom in the 5-10-membered heteroaryl is 1 or 2;

(14) in R^{b-1-1}, the halogen or the halogen in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently F, Cl, Br or I,

(15) in R^{b-1-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently C_{1-6}alkyl;

(16) in R^{1-2} and R^{1-3}, the C_{1-12}alkyl is independently C_{1-6}alkyl;

(17) in R^{1-2} and R^{1-3}, the C_{3-12}cycloalkyl or the C_{3-12}cycloalkyl in the C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{h-1} is independently C_{3-6}cycloalkyl;

(18) in R^{1-2} and R^{1-3}, the C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{h-2} is independently phenyl or naphthyl;

(19) in R^{1-2} and R^{1-3}, the number of the heteroatom in the 5-10-membered heteroaryl or the 5-10-membered heteroaryl in the 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{h-3} is 1 or 2;

(20) in R^{1-2} and R^{1-3}, the peptide formed by 2 or more amino acids is a peptide formed by 2 to 20 amino acids;

(21) in R^g, the C_{1-12}alkyl or the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 R^{g-1} is independently C_{1-6}alkyl;

(22) in R^g, the C_{3-12}cycloalkyl is independently C_{3-6}cycloalkyl;

(23) in R^g, the C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{g-3} is independently phenyl or naphthyl;

(24) in R^g, the 5-10-membered heteroaryl or the 5-10-membered heteroaryl in the 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{g-4} is 5-6-membered heteroaryl;

(25) in R^g, the number of the heteroatom in the 5-10-membered heteroaryl or the 5-10-membered heteroaryl in the 5-10-membered heteroaryl substituted with 1, 2 or 3 R^{g-4} is 1 or 2;

(26) in R^{g-1}, R^{g-3} and R^{g-4}, the halogen is independently F, Cl, Br or I;

(27) in R^{g-1}, R^{g-3} and R^{g-4}, the C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{g-1-1} is independently phenyl or naphthyl;

(28) in R^{g-1-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently C_{1-6}alkyl;

(29) in R^{g-1-1}, the halogen in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently F, Cl, Br or I;

(30) in R^2, the C_{1-12}alkyl is independently C_{1-6}alkyl;

(31) in R^2, the halogen is independently F, Cl, Br or I;

(32) in R^3, the -COC_{1-12}alkyl or the C_{1-12}alkyl in the -COC_{1-12}alkyl substituted with 1, 2 or 3 R^{3-1} is independently C_{1-6}alkyl;

(33) in R^3, the peptide formed by 2 or more amino acids is a peptide formed by 2 to 20 amino acids;

(34) in R^{3-1}, the C_{1-12}alkyl in the -OC_{1-12}alkyl is independently C_{1-6}alkyl;

(35) in R^4 and R^5, the C_{1-12}alkyl is independently C_{1-6}alkyl;

(36) in R^7, the C_{3-12}cycloalkyl in the -CH_2C_{3-12}cycloalkyl is independently C_{3-6}cycloalkyl;

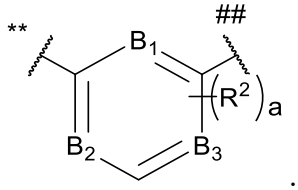
(37) in R^7, the -CH_2C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{7-1} is independently phenyl or naphthyl;

(38) in R^7, the 5-10-membered heteroaryl in the -CH_2-5-10-membered heteroaryl substituted with 1, 2 or 3 R^{7-2} is 5-6-membered heteroaryl;

(39) in R^7, the number of the heteroatom in the 5-10-membered heteroaryl in the -CH_2-5-10-membered heteroaryl substituted with 1, 2 or 3 R^{7-2} is 1 or 2;

(40) in R^{7-1}, the halogen in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently F, Cl, Br or I;

(41) in R^{7-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently C_{1-6}alkyl; and

(42) B is 

.

5. The polypeptide compound of claim 4, a pharmaceutically acceptable salt thereof, a solvate

thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound satisfies one or more of the following:

(1) in R^{1-1}, the C_{1-12}alkyl in the -OC_{1-12}alkyl is n-propyl, isopropyl, n-butyl, isobutyl, or tert-butyl;

(2) in R^{1-1}, the C_{3-12}cycloalkyl in the -OC_{3-12}cycloalkyl is cyclopentyl;

(3) o and p are independently 0 or 1;

(4) R^d is C_{6-10}aryl;

(5) in R^{1-1}, the peptide formed by 2 or more amino acids is a peptide formed by 2 to 10 amino acids;

(6) in R^a and R^b, the C_{1-12}alkyl or the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 R^{b-1} is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, or n-pentyl;

(7) in R^a and R^b, the C_{3-12}cycloalkyl is independently cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, or ;

(8) in R^a and R^b, the C_{6-10}aryl is independently phenyl;

(9) in R^a and R^b, the 5-10-membered heteroaryl is furyl, thienyl, imidazolyl, pyridyl, or quinolinyl;

(10) in R^{b-1}, the C_{3-12}cycloalkyl is independently cyclopropyl, cyclobutyl, cyclopentyl, or cyclohexyl;

(11) in R^{b-1}, the C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{b-1-1} is independently phenyl;

(12) in R^{b-1}, the 5-10-membered heteroaryl is independently 5-6 membered heteroaryl;

(13) in R^{b-1-1}, the halogen or the halogen in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is F;

(14) in R^{b-1-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, or n-pentyl;

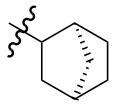
(15) in R^{1-2} and R^{1-3}, the C_{1-12}alkyl is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, n-pentyl, or n-hexyl;

(16) in R^{1-2} and R^{1-3}, the C_{3-12}cycloalkyl or the C_{3-12}cycloalkyl in the C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{h-1} is independently cyclopropyl, cyclobutyl, cyclopentyl, or cyclohexyl;

(17) in R^{1-2} and R^{1-3}, the peptide formed by 2 or more amino acids is a peptide formed by

2 to 10 amino acids;

(18) in R^g, the C_{1-12}alkyl or the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 R^{g-1} is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, n-pentyl, or n-hexyl;

(19) in R^g, the C_{3-12}cycloalkyl is independently cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, or ;

(20) in R^g, the C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{g-3} is phenyl;

(21) in R^{g-1}, R^{g-3} and R^{g-4}, the halogen is Cl;

(22) in R^{g-1}, R^{g-3} and R^{g-4}, the C_{6-10}aryl or the C_{6-10}aryl in the C_{6-10}aryl substituted with 1, 2 or 3 R^{g-1-1} is phenyl;

(23) in R^{g-1-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, or n-pentyl;

(24) in R^{g-1-1}, the halogen in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is F;

(25) in R^2, the C_{1-12}alkyl is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, n-pentyl, or n-hexyl;

(26) in R^2, the halogen is F;

(27) in R^3, the -COC_{1-12}alkyl or the C_{1-12}alkyl in the -COC_{1-12}alkyl substituted with 1, 2 or 3 R^{3-1} is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, n-pentyl, or n-hexyl;

(28) in R^3, the peptide formed by 2 or more amino acids is a peptide formed by 2 to 10 amino acids;

(29) in R^{3-1}, the C_{1-12}alkyl in the -OC_{1-12}alkyl is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, n-pentyl, or n-hexyl;

(30) in R^4 and R^5, the C_{1-12}alkyl is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, tert-butyl, n-pentyl, or n-hexyl;

(31) in R^7, the C_{3-12}cycloalkyl in the -CH_2C_{3-12}cycloalkyl is independently cyclopropyl, cyclobutyl, cyclopentyl, or cyclohexyl;

(32) in R^{7-1}, the halogen in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is F; and

(33) in R^{7-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is independently methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, t-butyl, or n-pentyl;

and/or,

wherein the polypeptide compound satisfies one or more of the following:

(1) in R^{1-1}, the C_{1-12}alkyl in the -OC_{1-12}alkyl is tert-butyl;

(2) R^d is naphthyl;

(3) in R^a and R^b, the C_{1-12}alkyl or the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 R^{b-1} is independently methyl or n-pentyl;

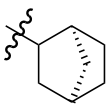
(4) in R^a and R^b, the C_{3-12}cycloalkyl is independently cyclopentyl or ;

(5) in R^{b-1}, the C_{3-12}cycloalkyl is cyclopentyl;

(6) in R^{b-1-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is methyl;

(7) in R^{1-2} and R^{1-3}, the C_{1-12}alkyl is independently methyl, isopropyl, n-pentyl, or n-hexyl;

(8) in R^g, the C_{1-12}alkyl or the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 R^{g-1} is independently methyl, ethyl or n-pentyl;

(9) in R^g, the C_{3-12}cycloalkyl is independently cyclopentyl, cyclohexyl or ;

(10) in R^{g-1-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is methyl;

(11) in R^2, the C_{1-12}alkyl is methyl;

(12) in R^3, the -COC_{1-12}alkyl or the C_{1-12}alkyl in the -COC_{1-12}alkyl substituted with 1, 2 or 3 R^{3-1} is independently methyl, ethyl or n-pentyl;

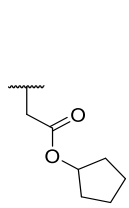
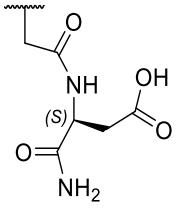
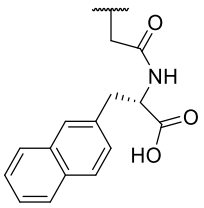
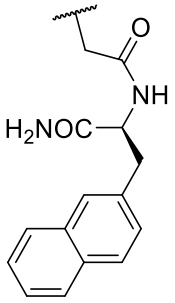
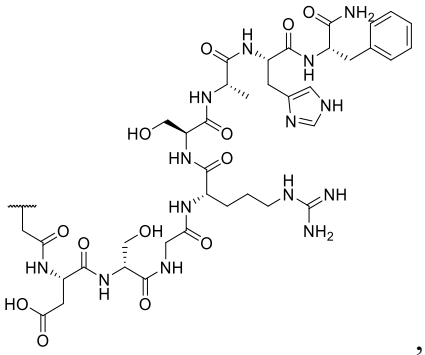
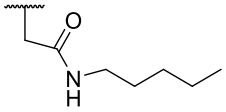
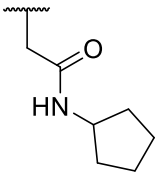
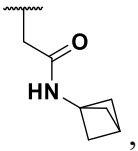
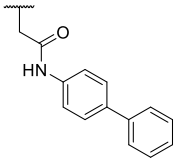
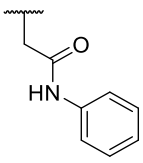
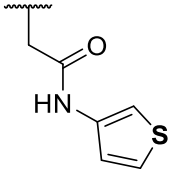
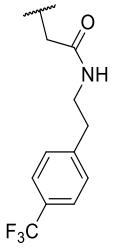
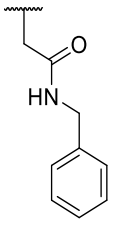
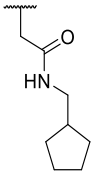
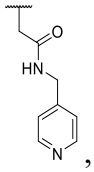
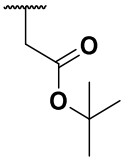
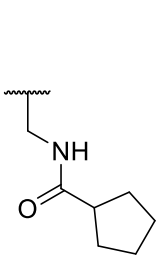
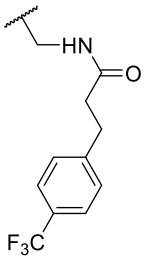
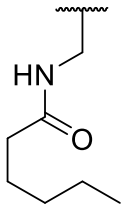
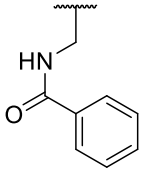
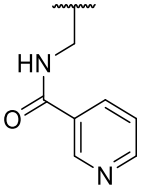
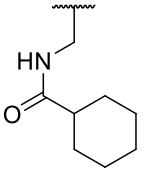
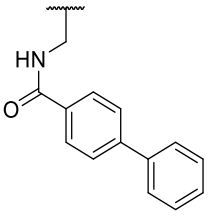
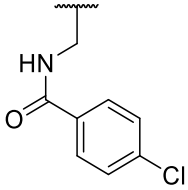
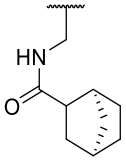
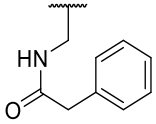
(13) in R^{3-1}, the C_{1-12}alkyl in the -OC_{1-12}alkyl is methyl;

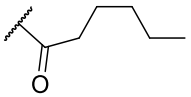
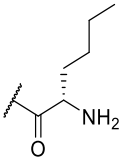
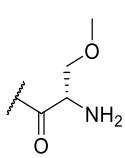
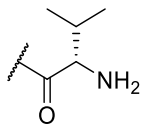
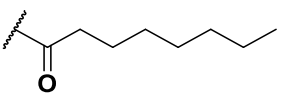
(14) in R^4 and R^5, the C_{1-12}alkyl is methyl;

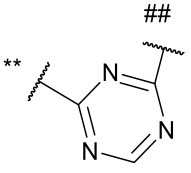
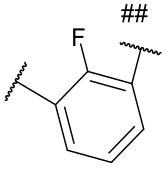
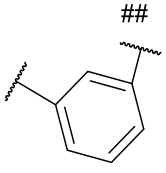
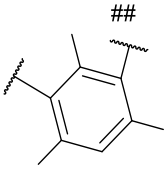
(15) in R^7, the C_{3-12}cycloalkyl in the -CH_2C_{3-12}cycloalkyl is cyclohexyl; and

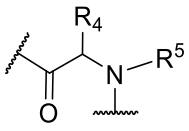
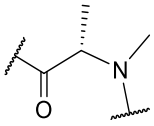
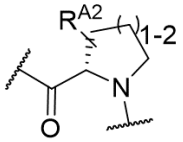
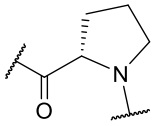
(16) in R^{7-1}, the C_{1-12}alkyl in the C_{1-12}alkyl substituted with 1, 2 or 3 halogen is methyl.

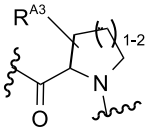
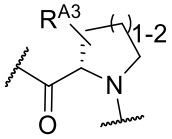
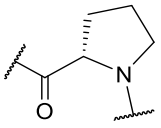
6. The polypeptide compound of claim 1 or 2, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound satisfies one or more of the following:

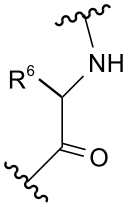
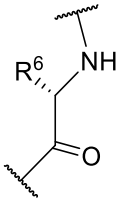
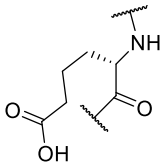
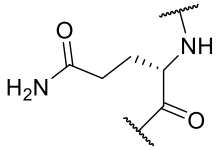
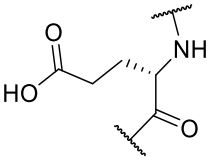
(1) R^1 is $-CH_2COOH$, $-CH_2CH_2COOH$, , , , , , $-CH_2CONH_2$, , , , , , , , , , , , $-CH_2NH_2$, $-CH_2NHCOCH_3$, $-CH_2CH_2NH_2$, $-CH_2NH(CH_2)_4CH_3$, $-CH_2NH(CH_2)_5CH_3$, , , , , , , , , , or ;

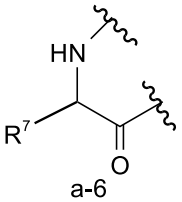
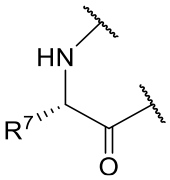
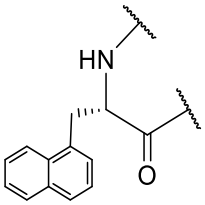
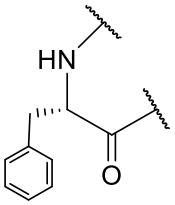
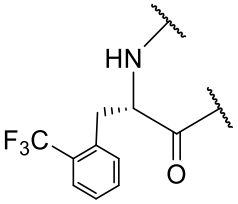
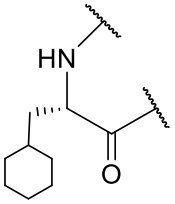
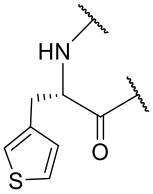
(2) R^3 is , , , , or ;

(3) B is , , , or ;

(4)  a-2 ;  a-2-2 is 

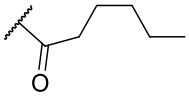
(5)  a-3 is , optionally ;

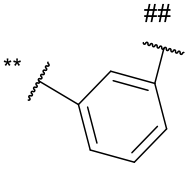
(6)  a-5 is , optionally ,  or ;and

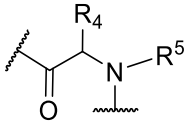
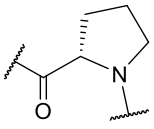
(7)  a-6 is , optionally , , , , or ;

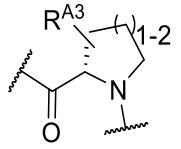
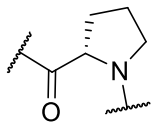
preferably,

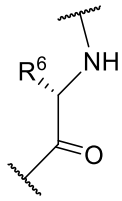
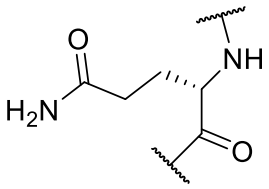
wherein the polypeptide compound satisfies one or more of the following:

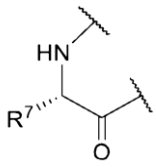
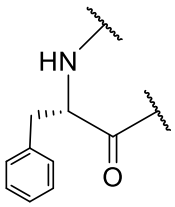
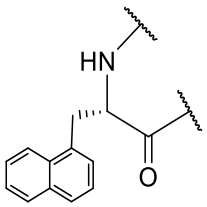
(1) R^3 is ;

(2) B is ;

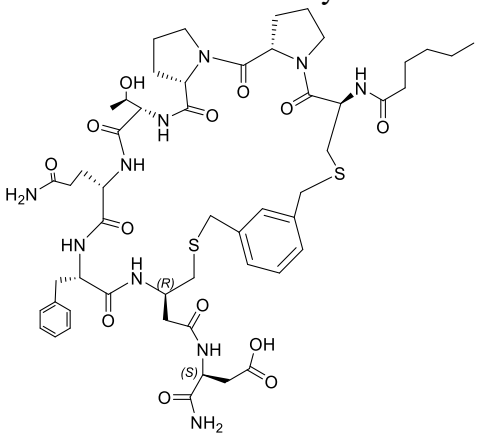
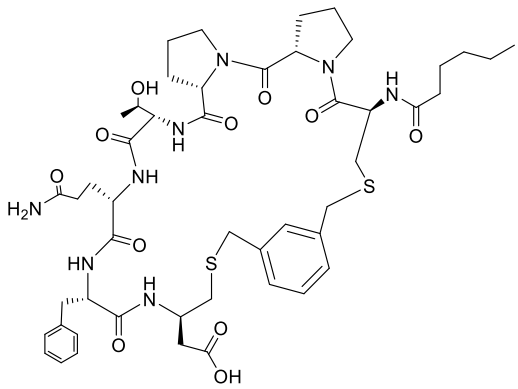
(3)  a-2 is ;

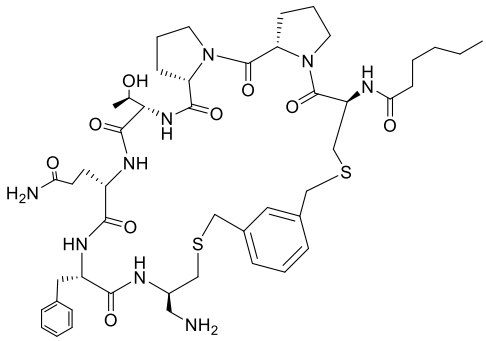
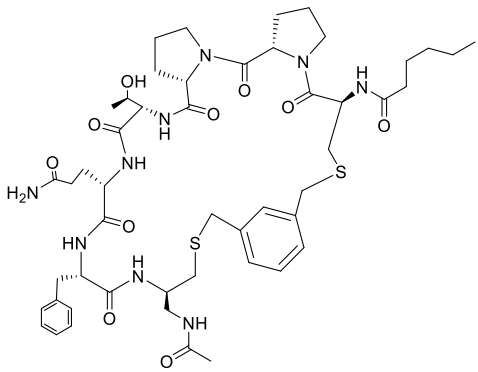
(4)  is ;

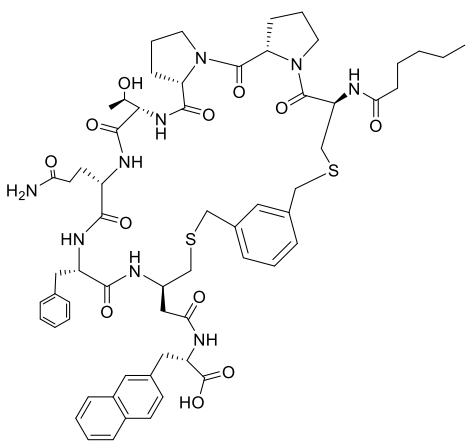
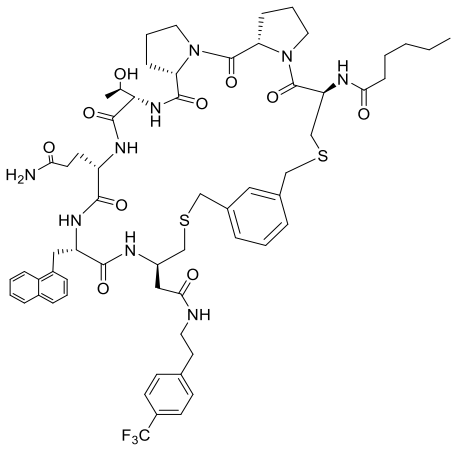
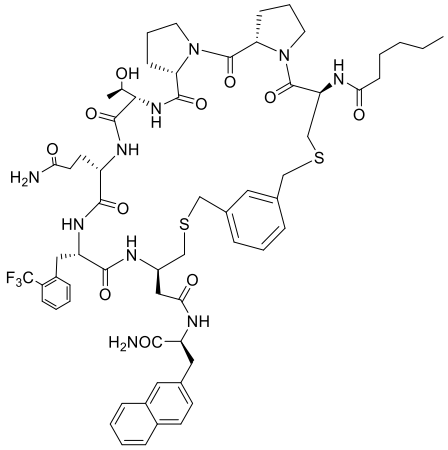
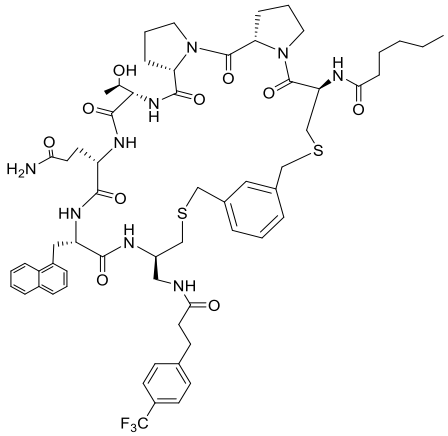
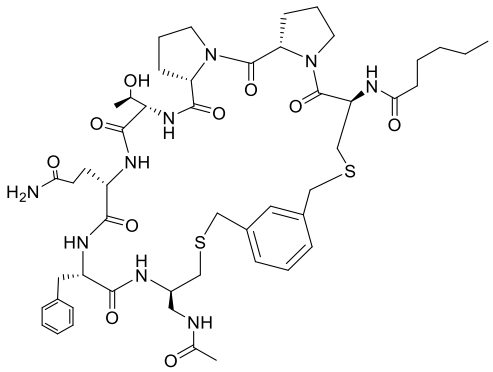
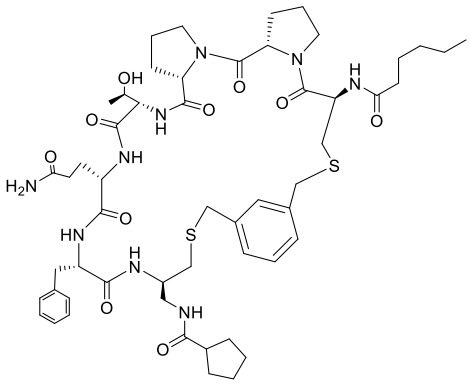
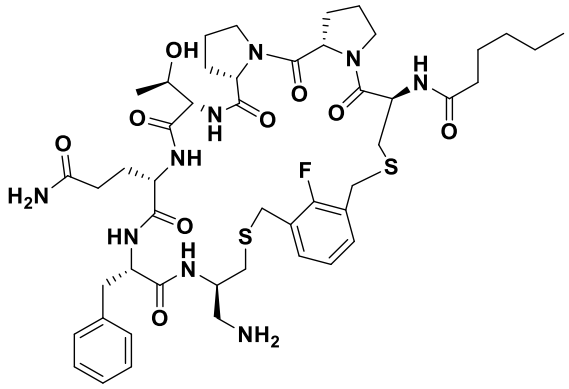
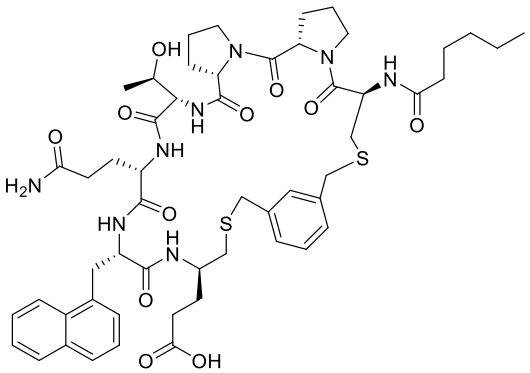
(5)  is ;and

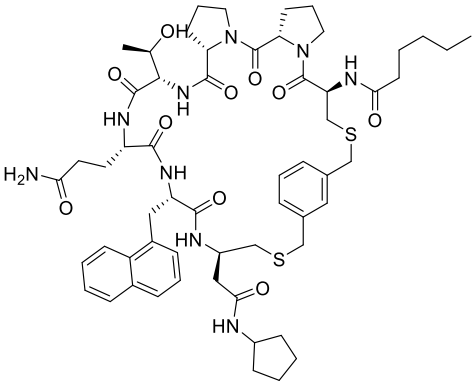
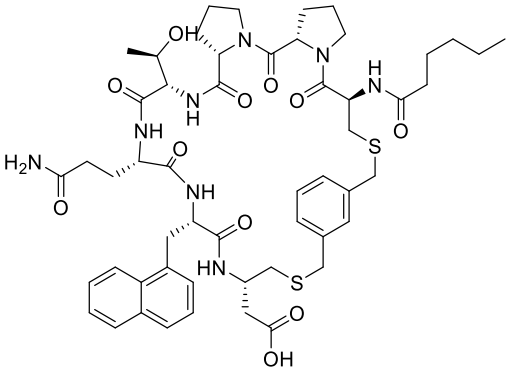
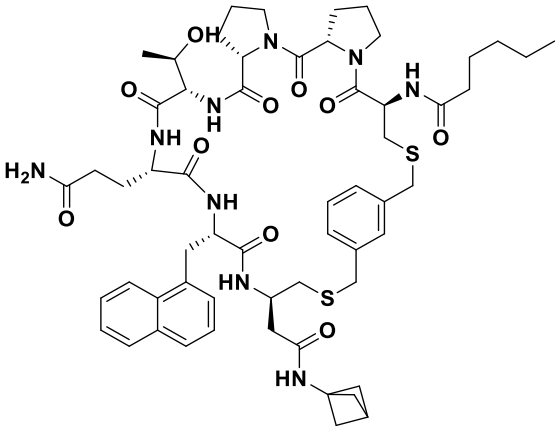
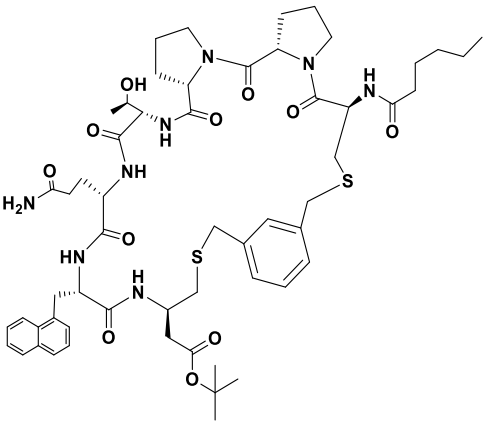
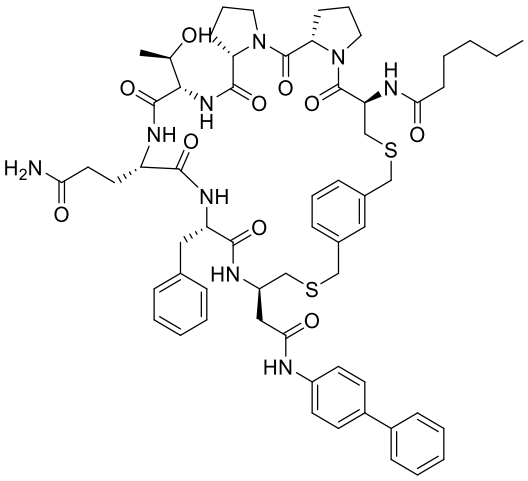
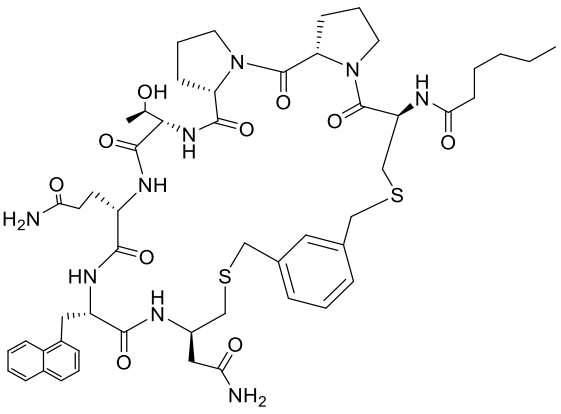
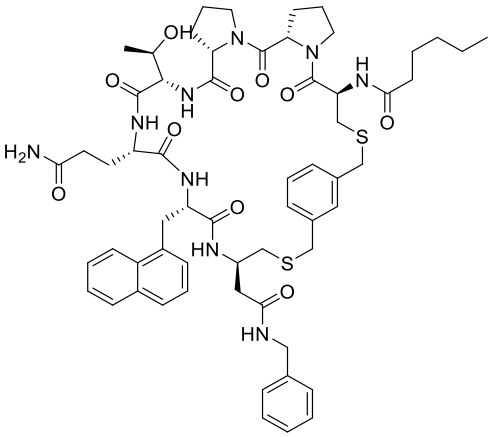
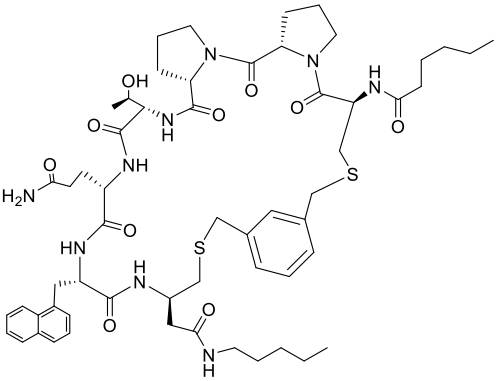
(6)  is  or .

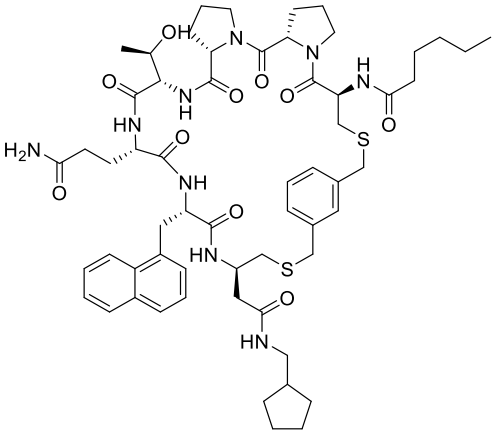
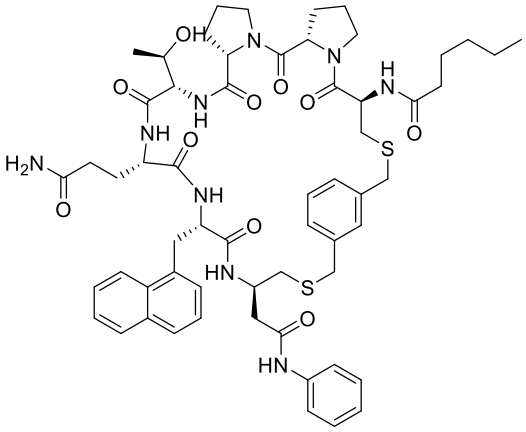
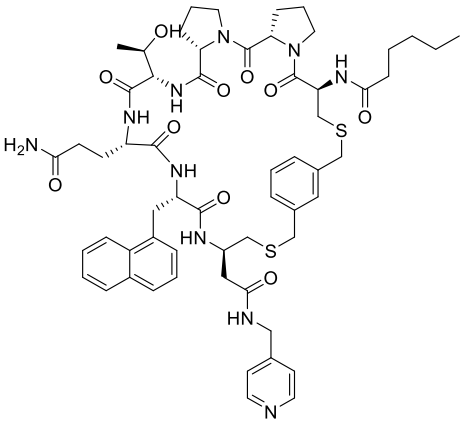
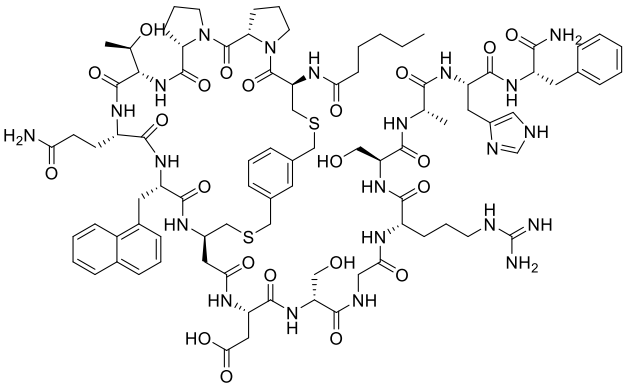
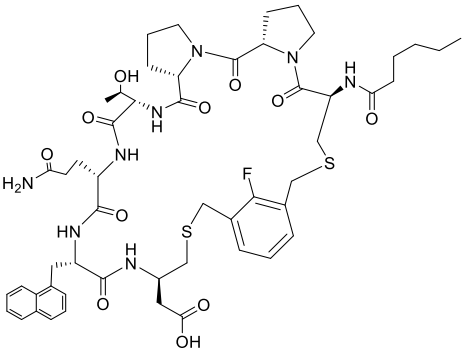
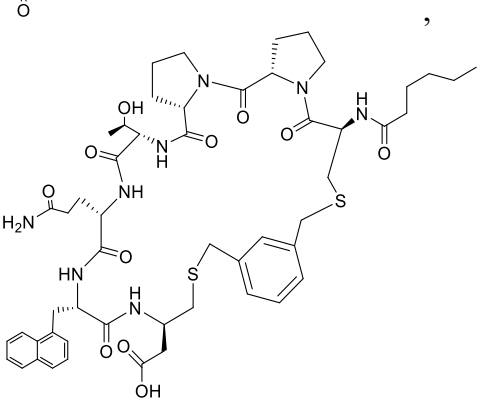
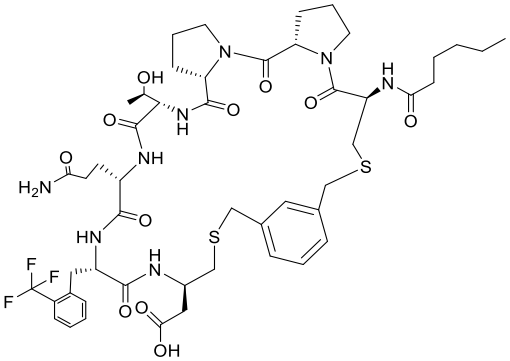
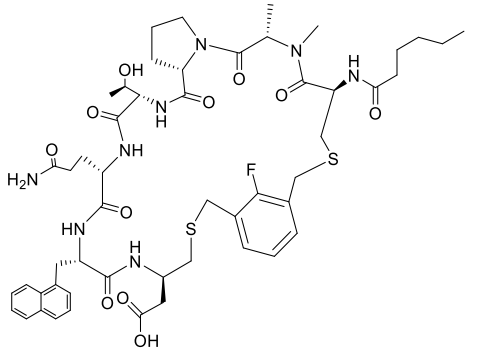
7. The polypeptide compound of claim 1, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is selected from any of the following compounds:

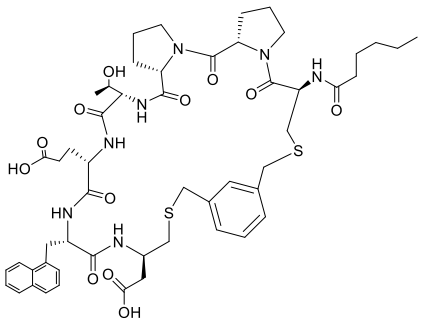
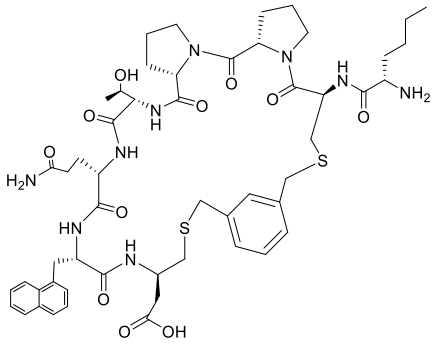
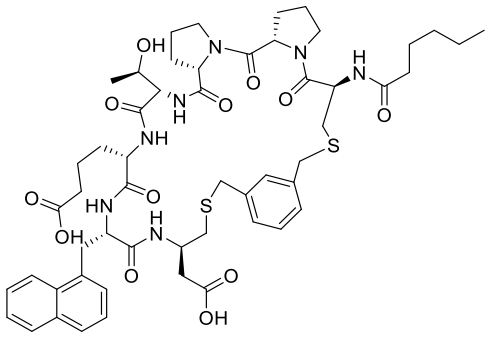
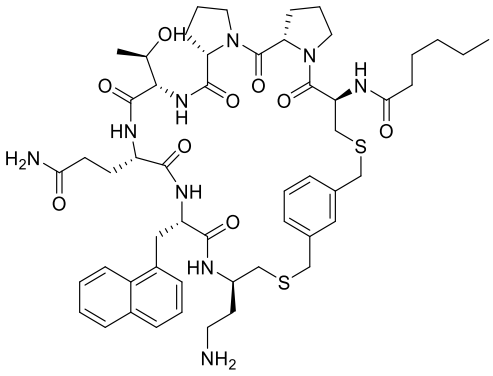
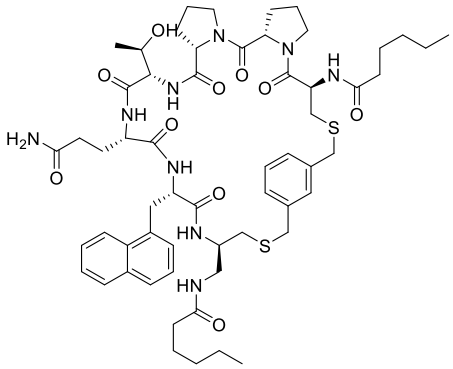
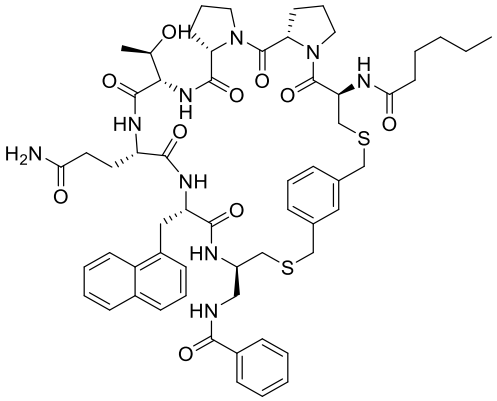
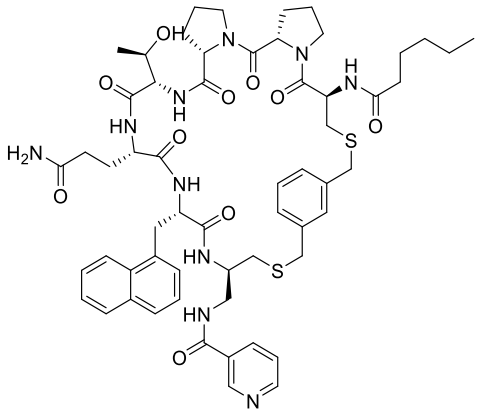
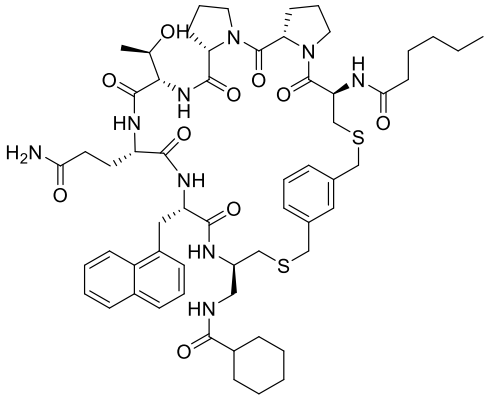
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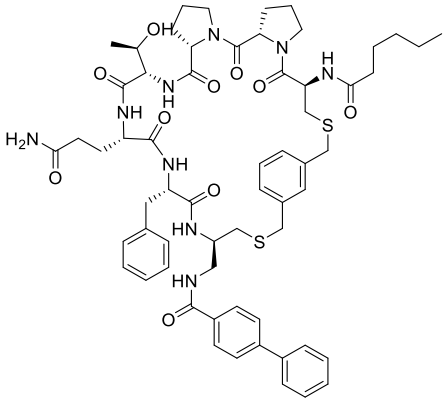
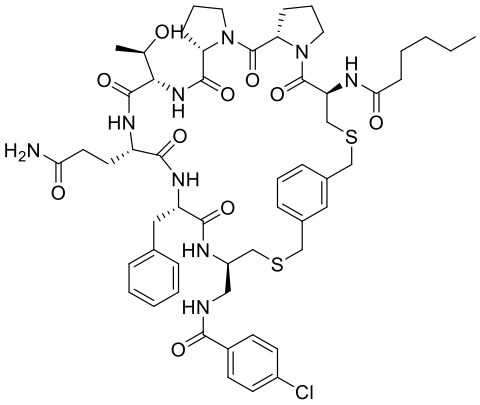
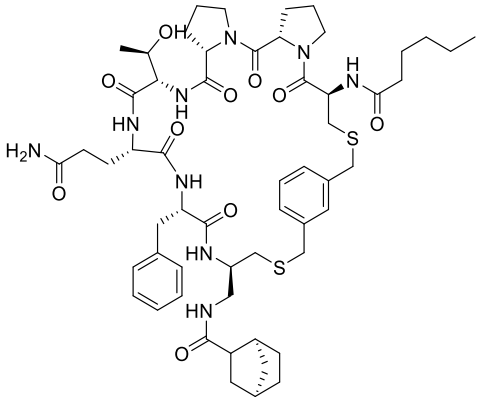
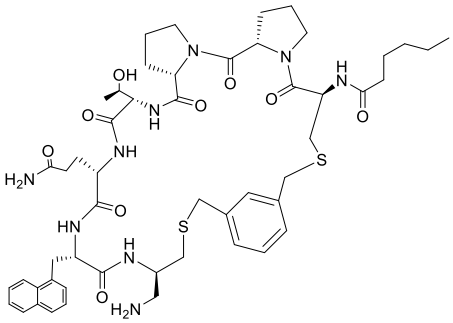
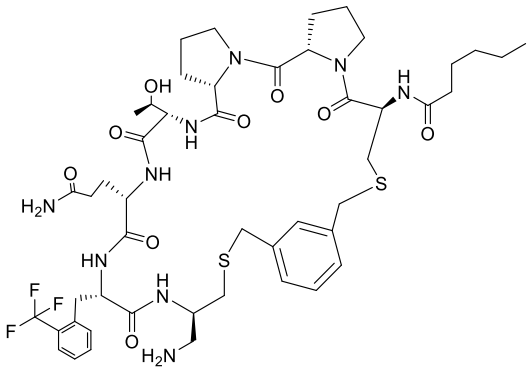
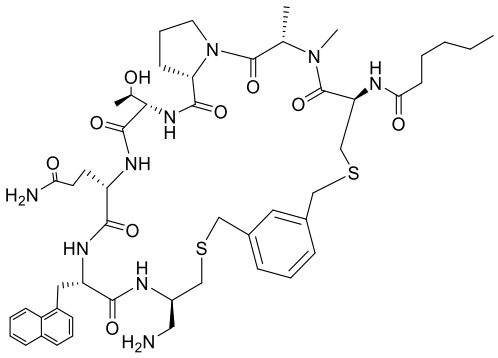
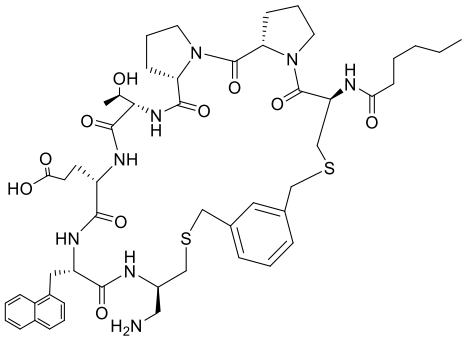
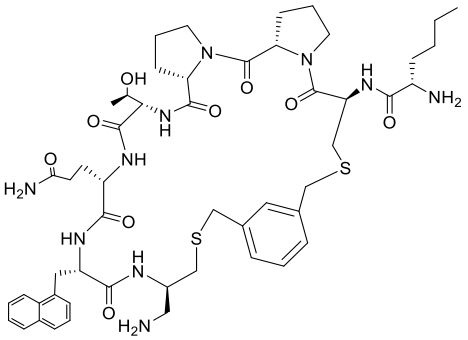
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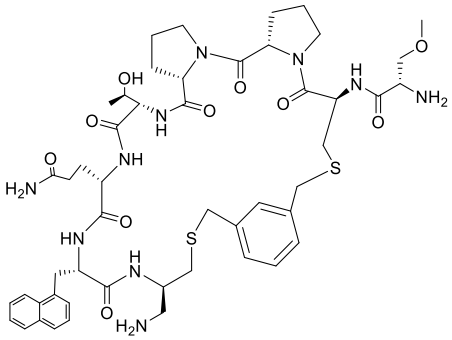
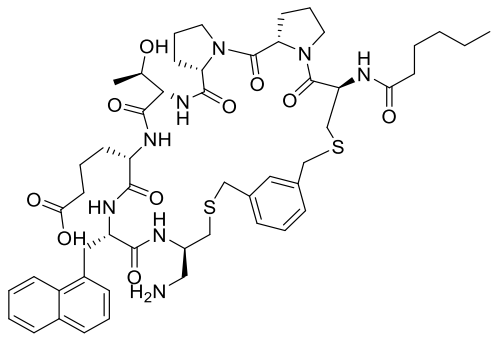
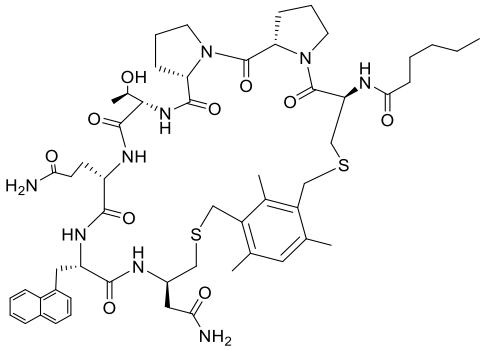
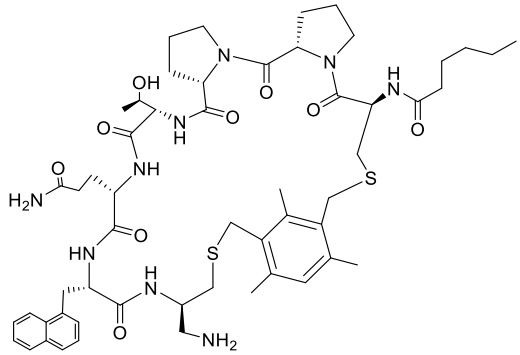
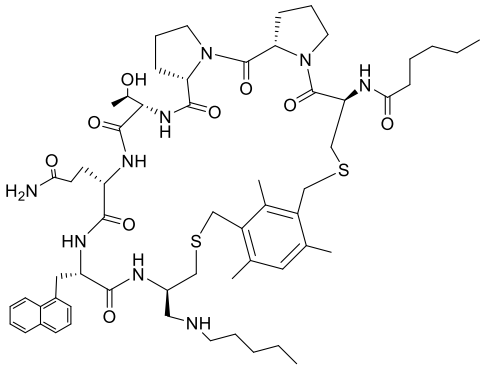
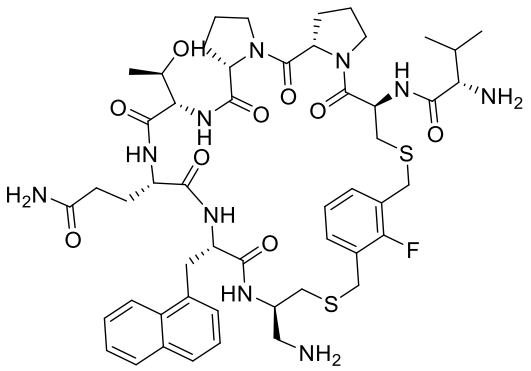
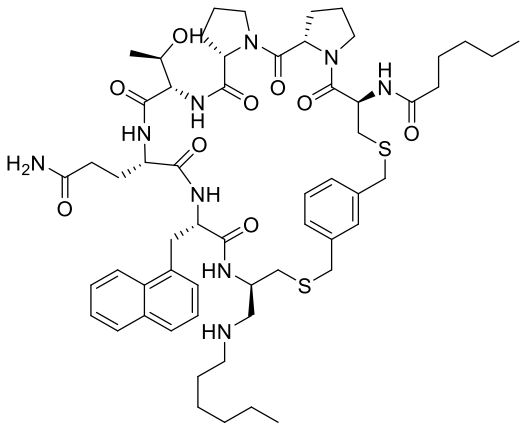
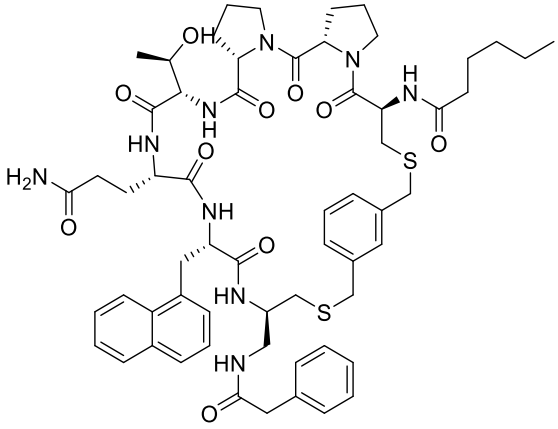

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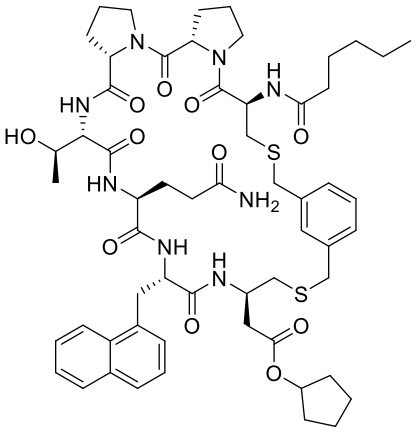
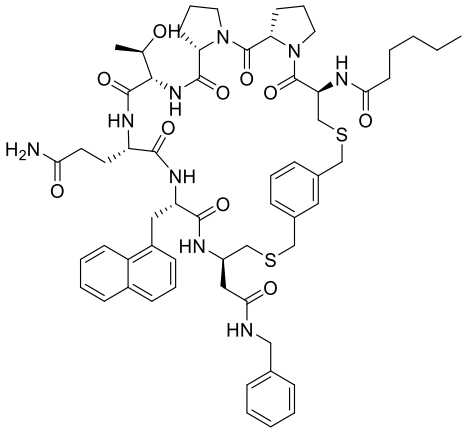
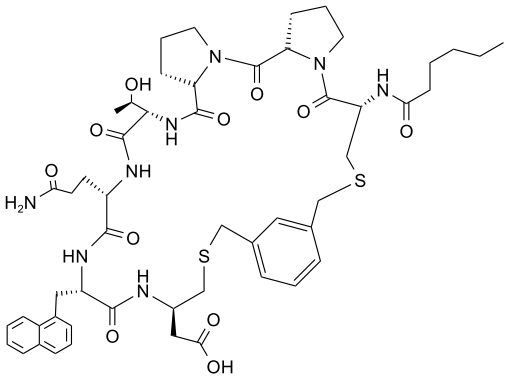
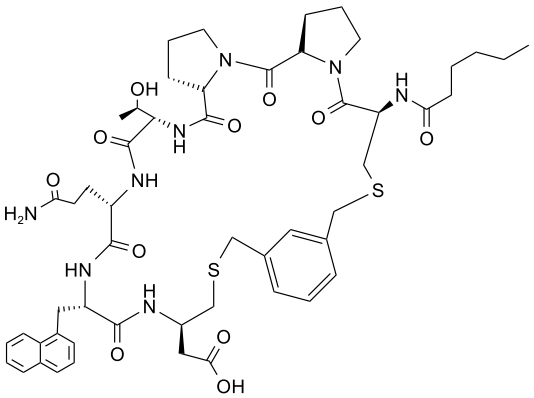
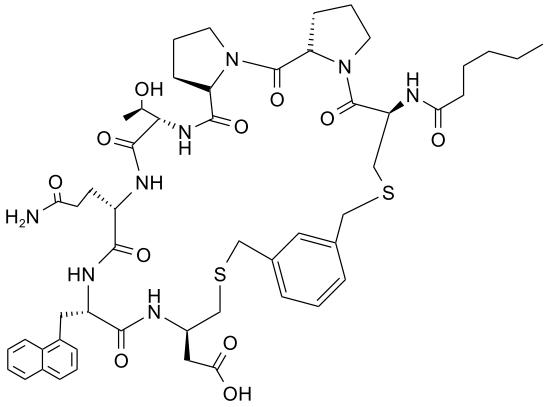
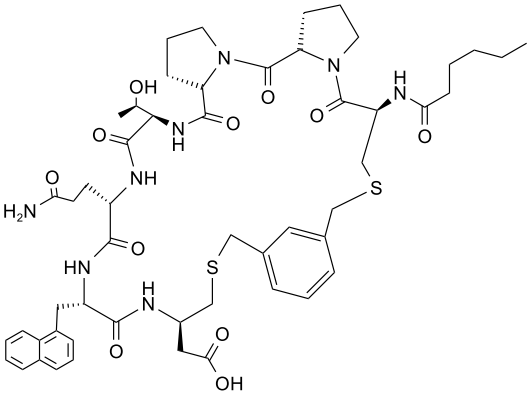
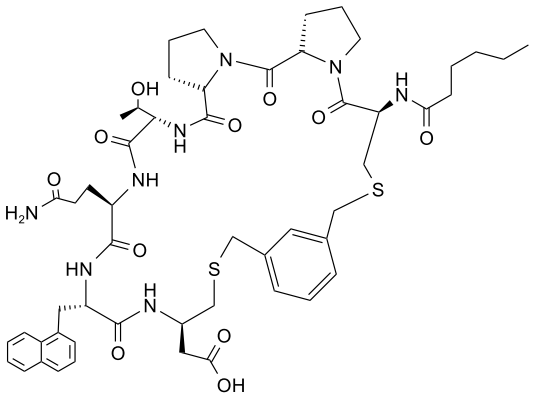
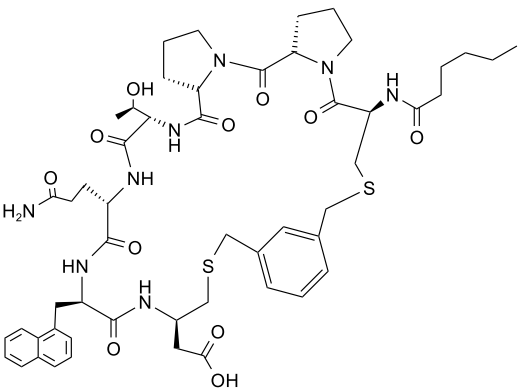

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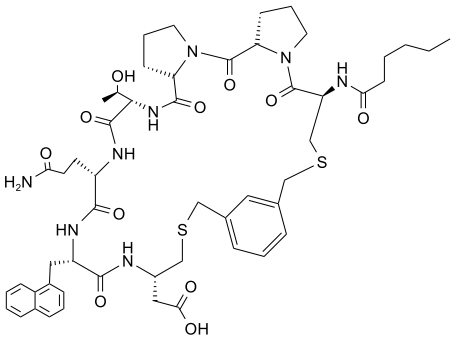

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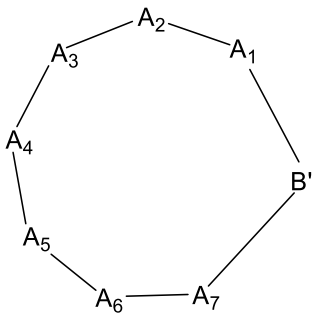

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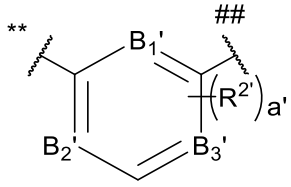
8. A polypeptide compound, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is a compound represented by formula I-B; wherein A_1, A_2, A_3, A_4, A_5, A_6 and A_7 are sequentially connected via a peptide bond (-CO-NH-);



I-B

R^1 is $-(CH_2)_{m'}M$;

m' is 0, 1, 2, 3, 4, 5, or 6;

B' is  ;

a' is 1, 2 or 3;

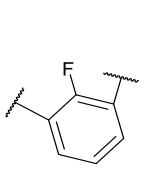
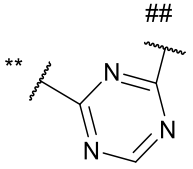
B_1' is CH, and B_2' and B_3' are independently N or C; $R^{2'}$ is independently H, C_{1-12}alkyl or halogen, and at least one $R^{2'}$ is halogen;

or B_1', B_2' and B_3' are independently N or CH; $R^{2'}$ is independently C_{1-12}alkyl or halogen; and

other groups are as defined in any one of claims 1-7.

9. The polypeptide compound of claim 8, a pharmaceutically acceptable salt thereof, a solvate

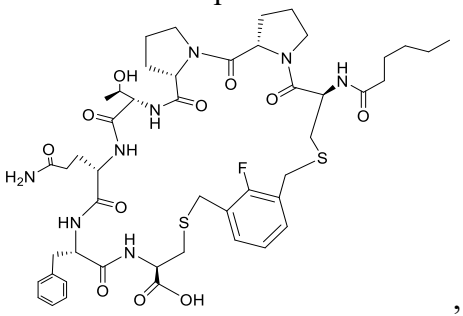
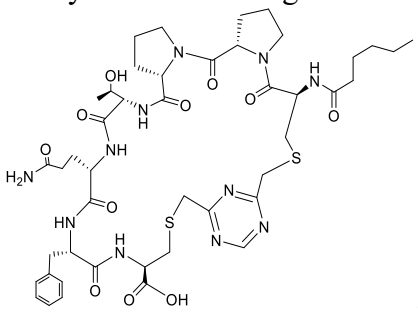
thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound satisfies one or both of the following:

(1) B' is  or  ; and

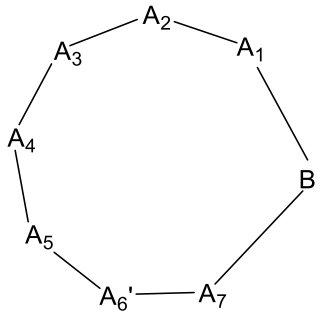
(2) R^1 is -COOH;

preferably,

wherein the compound is selected from any of the following structures:

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10. A polypeptide compound, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is a compound represented by formula I-C; wherein A_1, A_2, A_3, A_4, A_5, A_6' and A_7 are sequentially connected via a peptide bond (-CO-NH-);

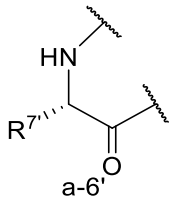


I-C

R^1 is -$(CH_2)_{m'}$M;

m' is 0, 1, 2, 3, 4, 5, or 6;

A_6' has a structure represented by formula a-6',



;

wherein $R^{7'}$ is -CH_2C_{3-12}cycloalkyl, C_{6-10}aryl substituted with 1, 2 or 3 R^{7-1}, or -CH_2C_{3-12}cycloalkyl substituted with 1, 2 or 3 R^{7-2};

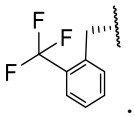
R^{7-1} and R^{7-2} are independently C_{1-12}alkyl or C_{1-12}alkyl substituted with 1, 2 or 3 halogen; and other groups are as defined in any one of claims 1-7.

11. The polypeptide compound of claim 10, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound satisfies one or both of the following:

(1) $R^{7'}$ is -CH_2C_{3-12}cycloalkyl, or C_{6-10}aryl substituted with 1, 2 or 3 R^{7-1}, and

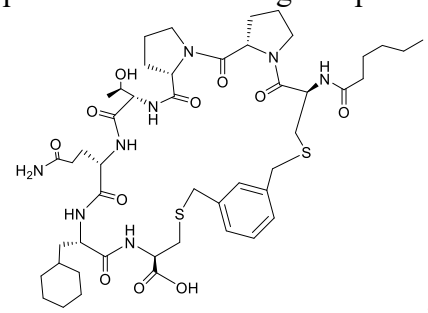
(2) R^1 is -COOH;

and/or,

wherein $R^{7'}$ is -CH_2cyclohexyl or 

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12. The polypeptide compound of claim 10, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is the following compound:



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13. A polypeptide compound, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is represented by formula II,

D-L;

II

D is the compound represented by formula I of any one of preceding embodiments or a group formed by the loss of a H atom or OH group at the position of B, R^1 or R^3 of the compound represented by formula I of any one of claims 1-7, a group formed by the loss of a H atom or OH group at the position of B', R^1 or R^3 of the compound represented by formula I-B of any one of claims 8-9, or a group formed by the loss of a H atom or OH group at the position of B, R^1 or R^3 of the compound represented by formula I-C of any one of claims 10-12; and

L is a non-cleavable linker.

14. The polypeptide compound of claim 13, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein L is: -A, -W, -W-A, -A-W, -W-A-W, or -A-W-A;

A is a group formed by the loss of a OH group by a carboxyl group on an amino acid, a group formed by the loss of a H atom by an amino group on an amino acid, a group formed by the loss of a -OH group by a carboxyl group on a peptide formed by 2 or more amino acids, or a group formed by the loss of a H atom by an amino group on a peptide formed by 2 or more amino acids;

W is $-(Y)_g-(CH_2)_c-NHR^t$;

Y is independently selected from any one or a combination of the following groups: $-(CH_2)_b-X-$, $-(CH_2)_c-C_{6-10}$arylene$-(CH_2)_d-$, $-(CH_2)_c-$5-12-membered heterocycloalkyl$-(CH_2)_d-$, $-(CH_2)_c-C_{3-12}$cycloalkylene$-(CH_2)_d-$, and $-(CH_2)_c-CO-(CH_2)_d-$; the heteroatom of the 5 to 12-membered heterocycloalkyl is selected from one or more of N, O and S; the number of the heteroatom is 1, 2 or 3;

X is S, O or NH;

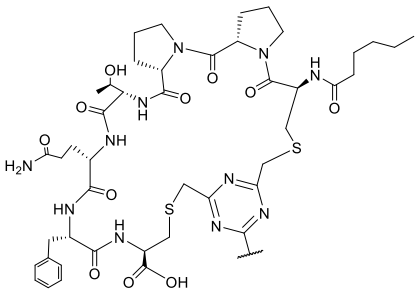
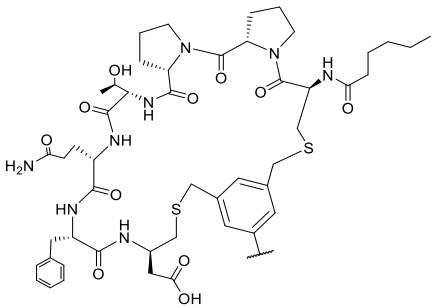
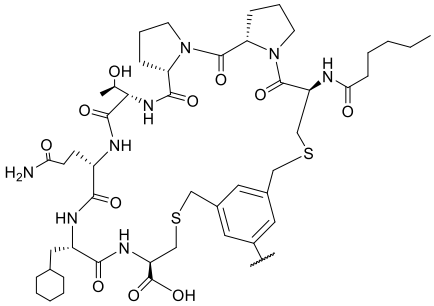
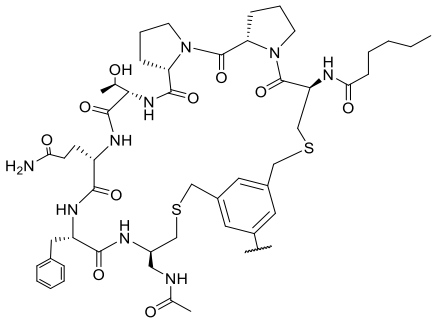
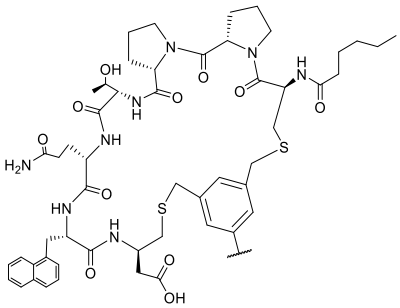
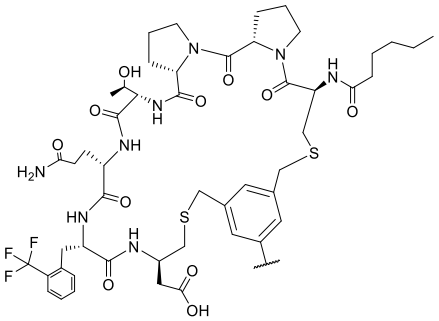
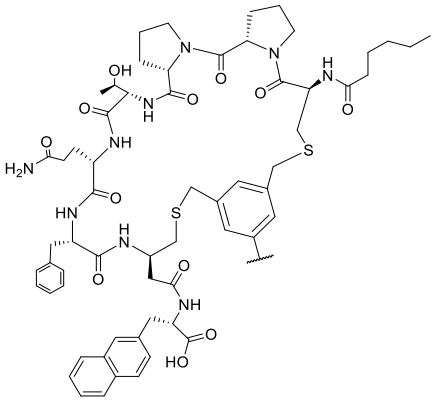
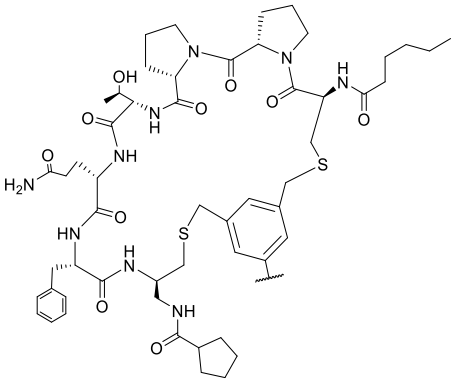
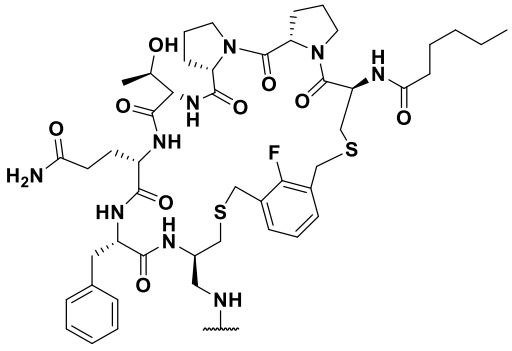
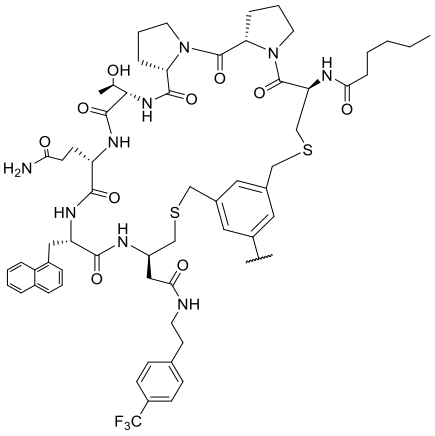
R^t is H or C_{1-12}alkyl, or R^t together with -NH forms a 5-10-membered nitrogen-containing heterocycloalkyl;

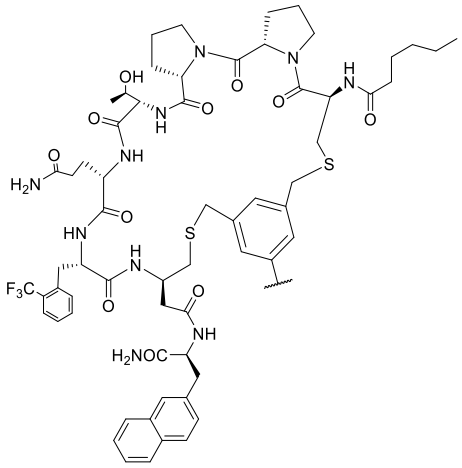
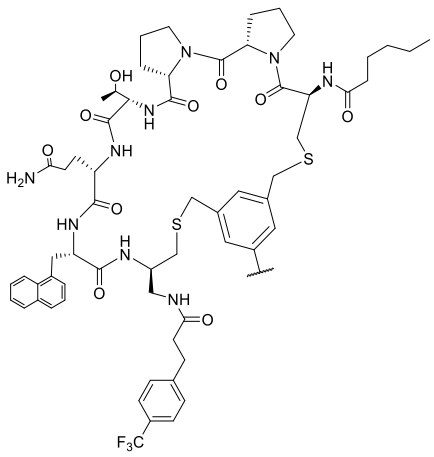
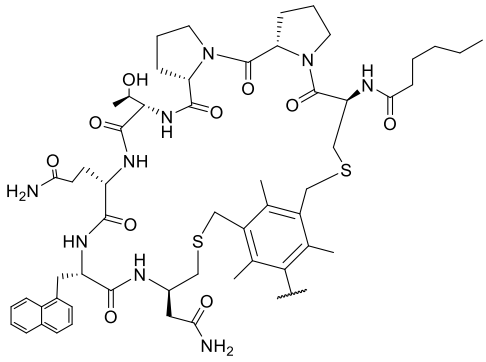
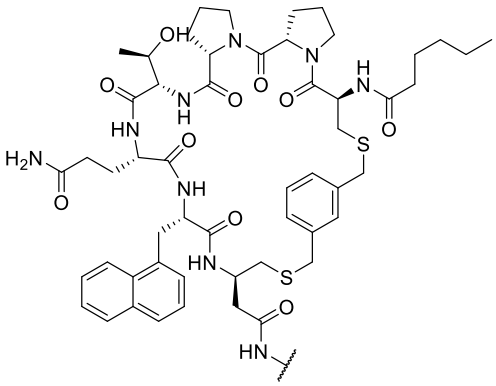
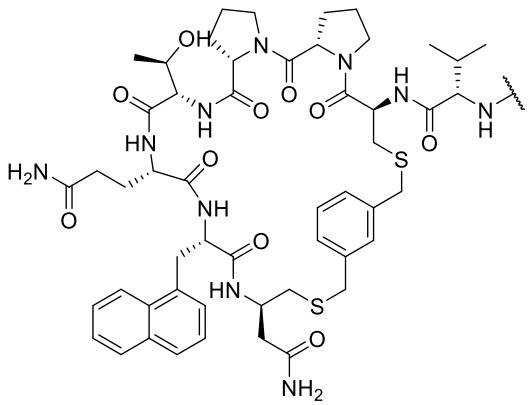
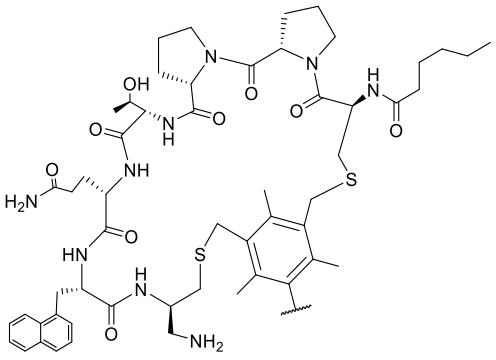
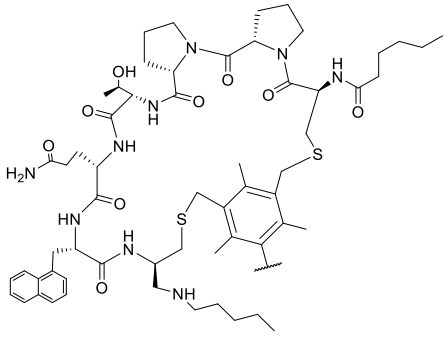
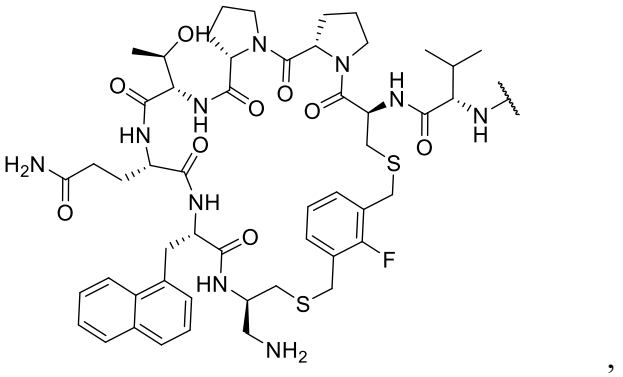
g, b, c and d are independently 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10;

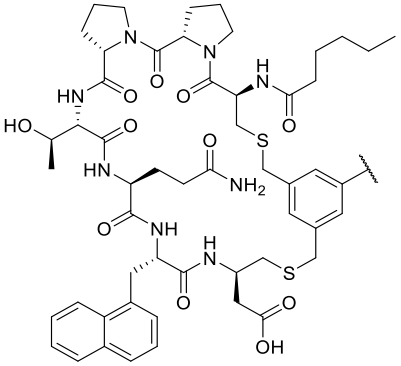
and/or,

wherein the polypeptide compound satisfies one or both of the following:

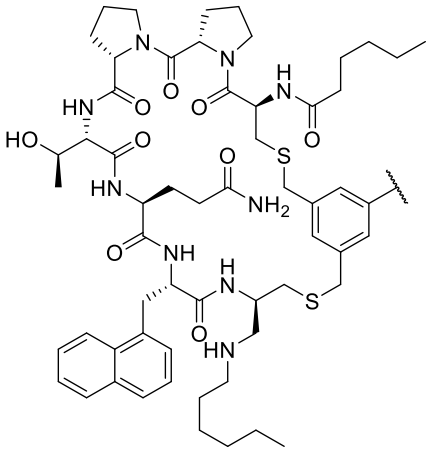
(1) D is selected from any of the following segments:


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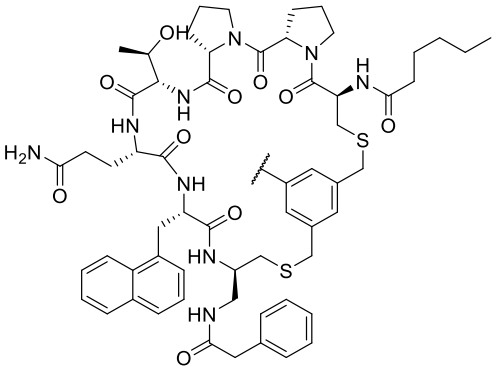

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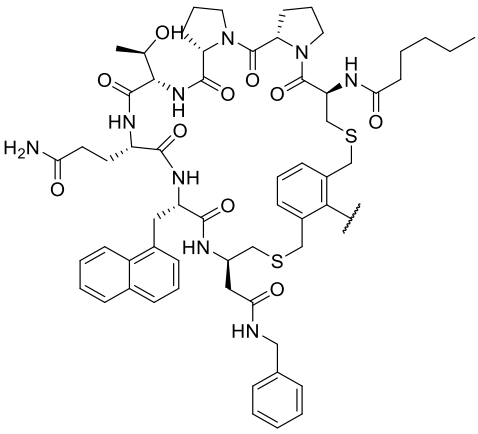
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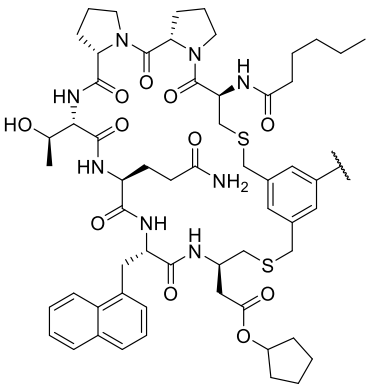
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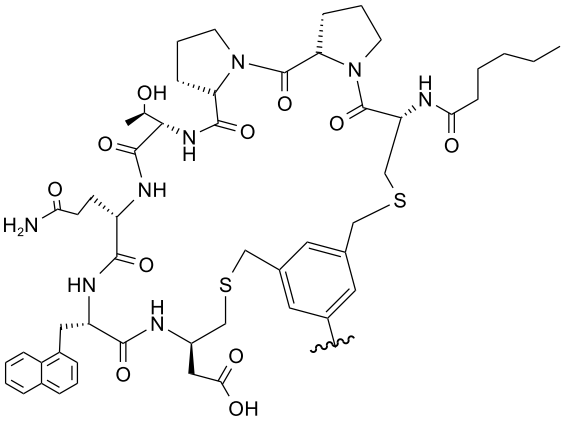
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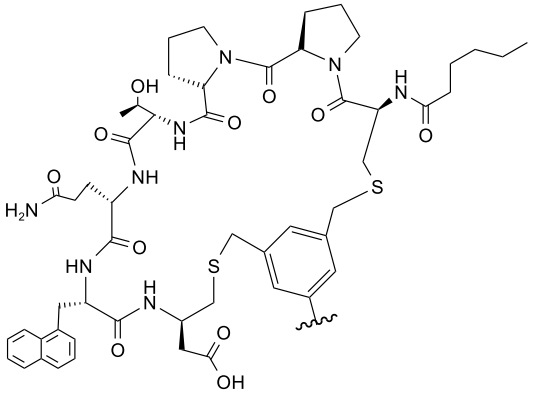
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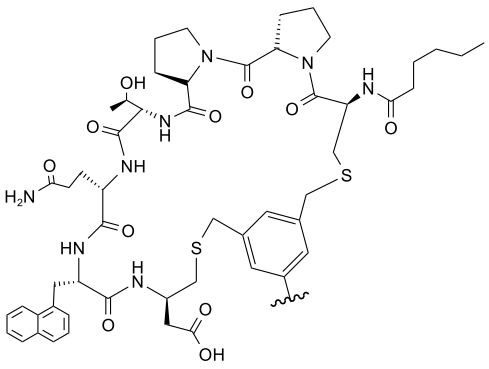
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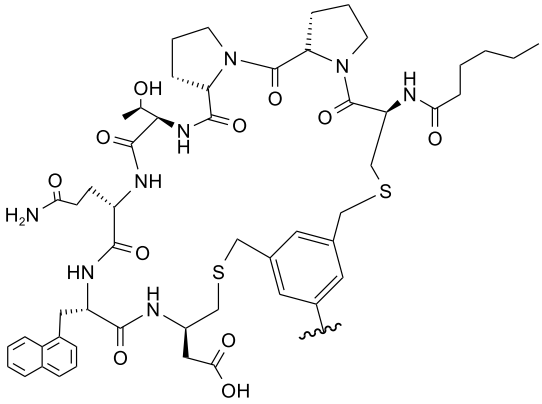
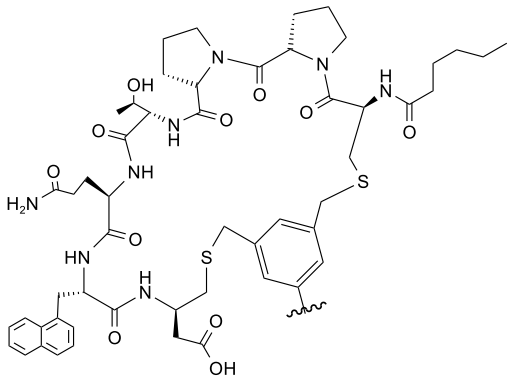
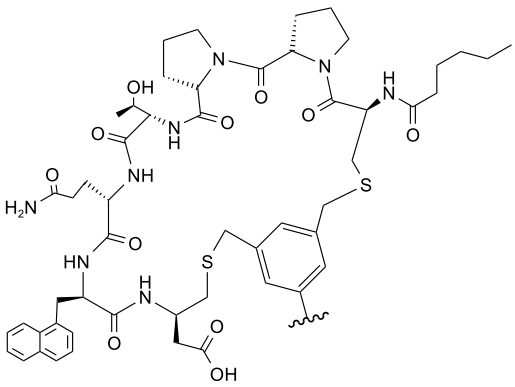
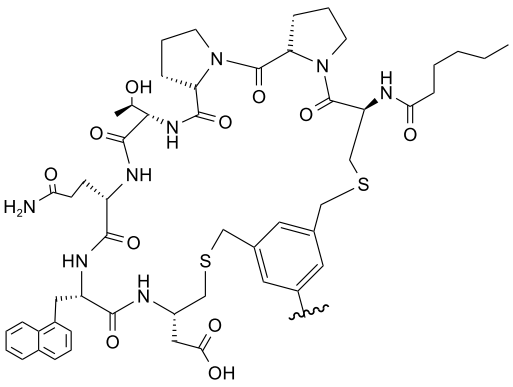
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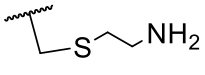
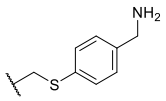
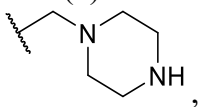
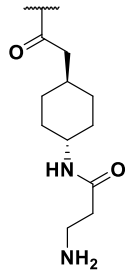
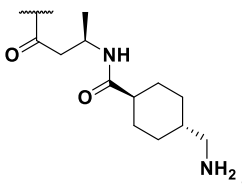
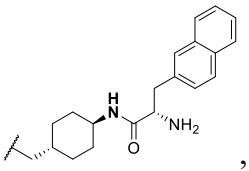
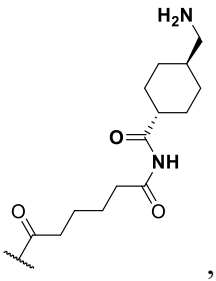
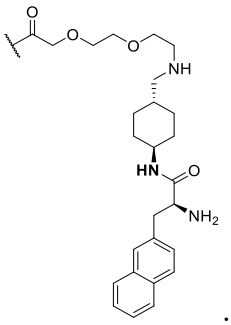


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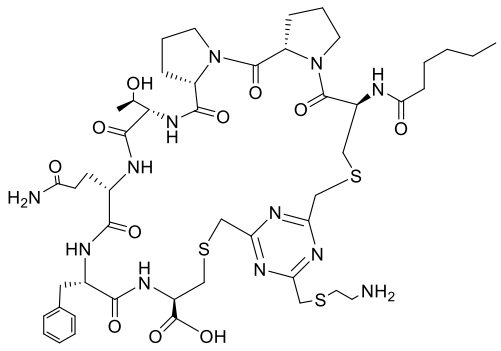
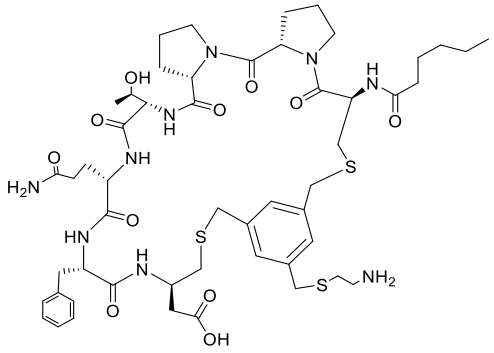
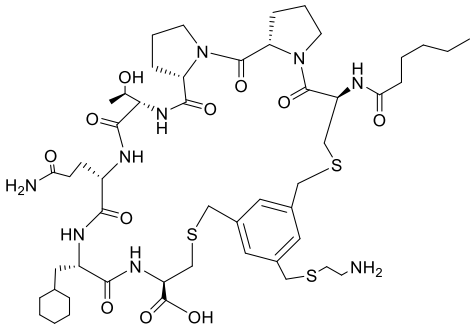
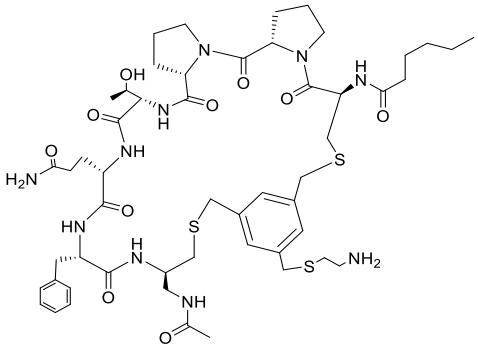
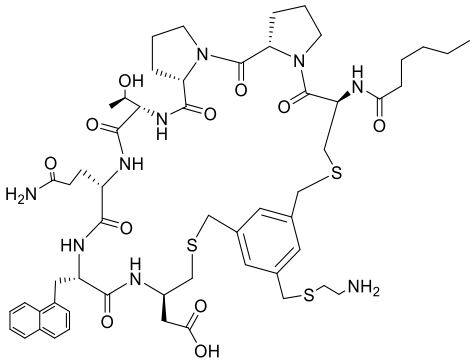
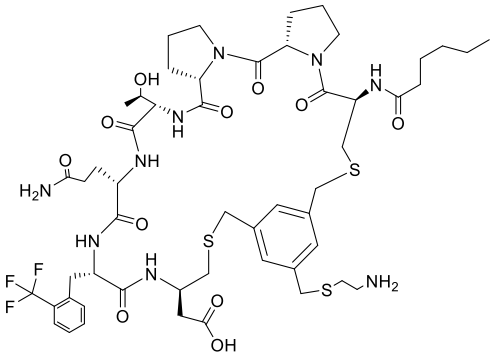
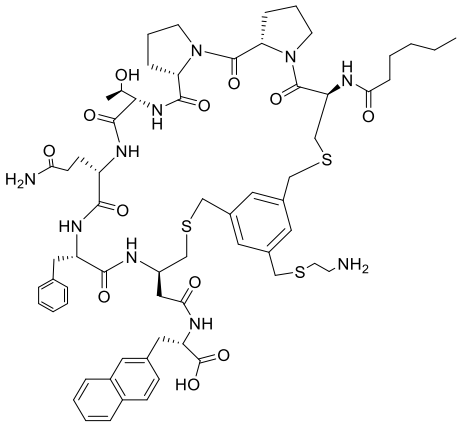
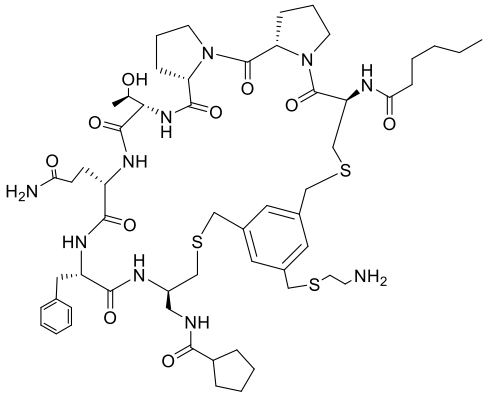


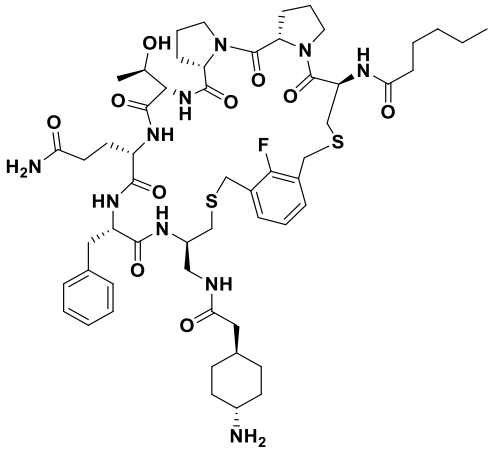
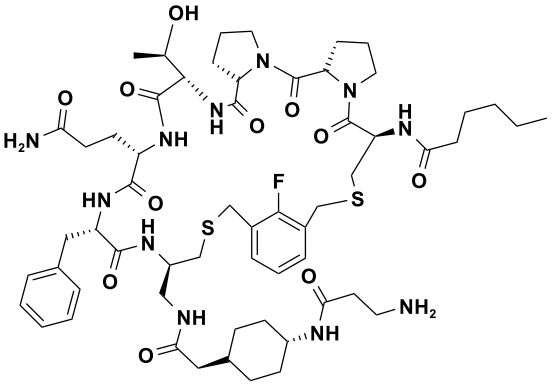
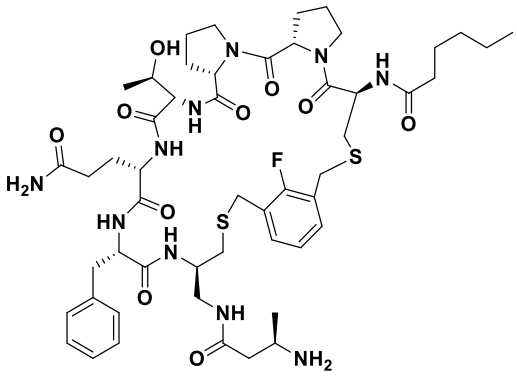
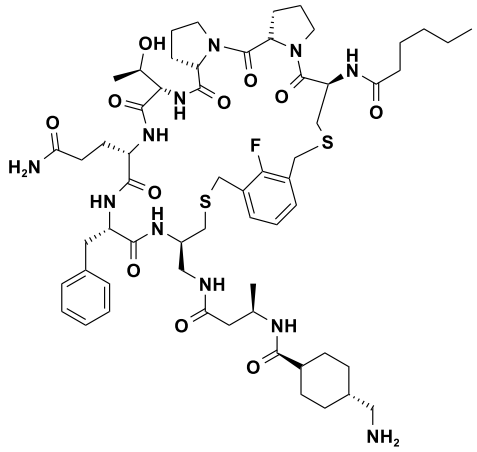
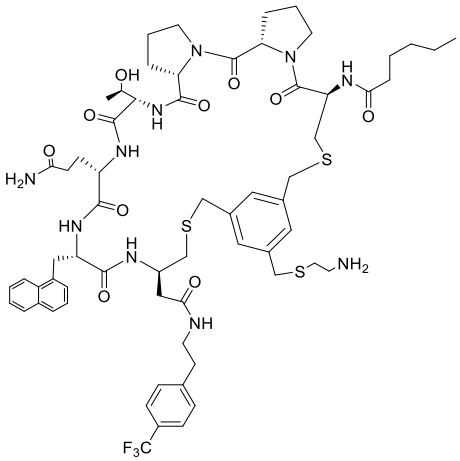
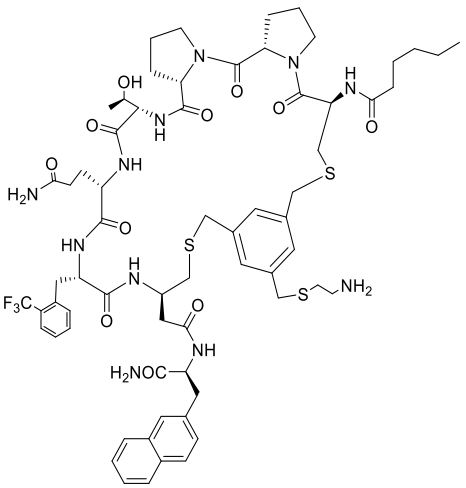
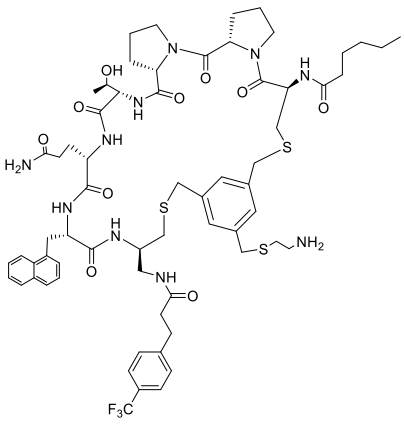
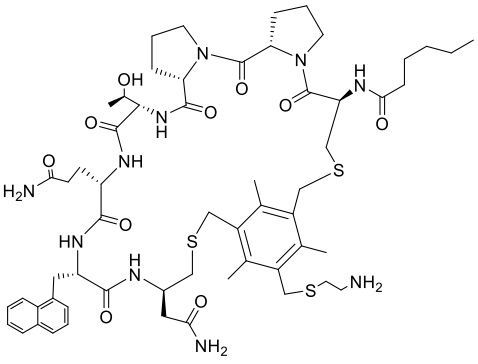
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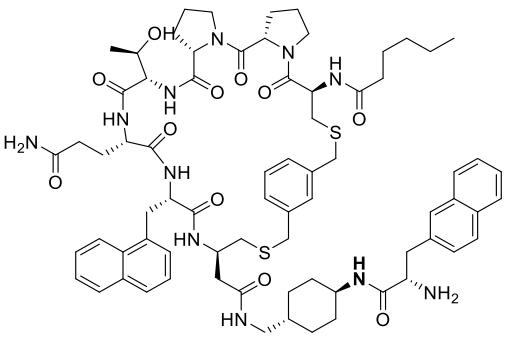
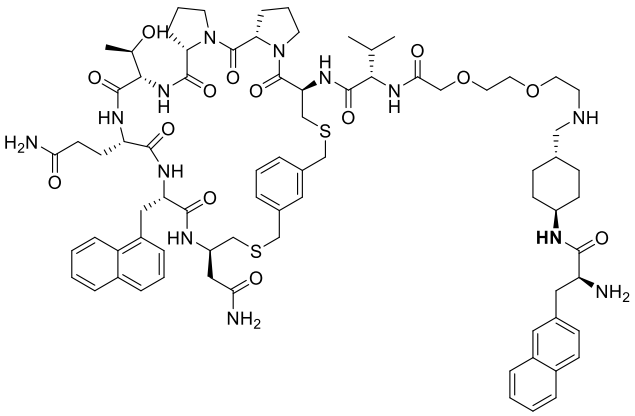
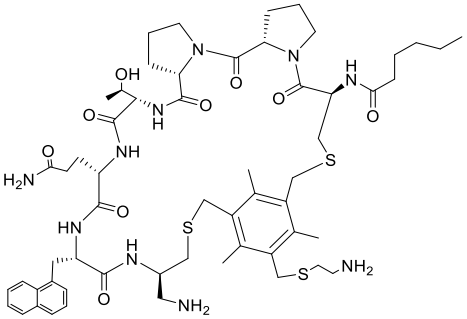
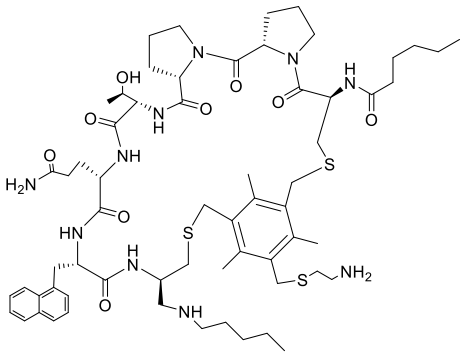
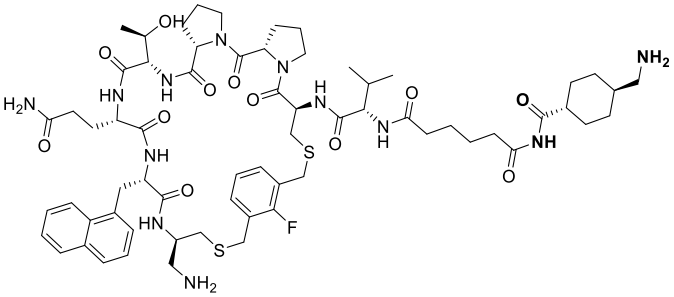
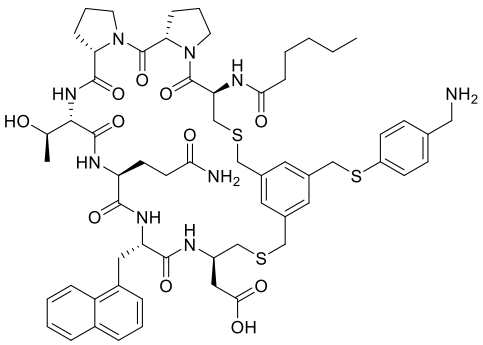
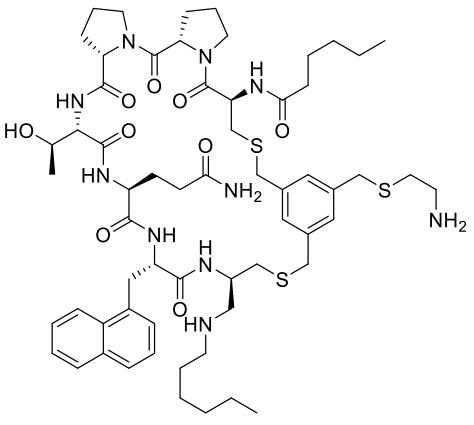
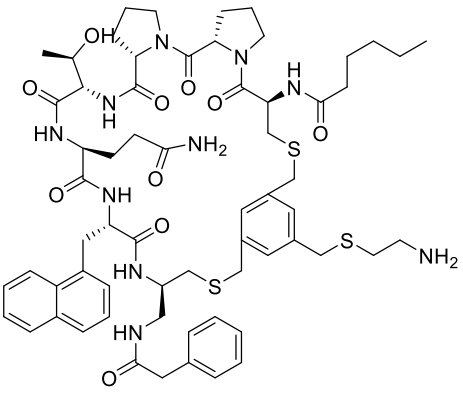

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; and

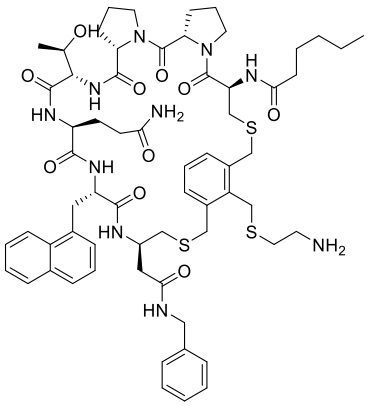
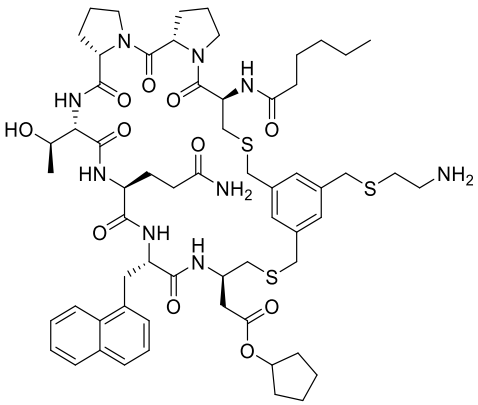
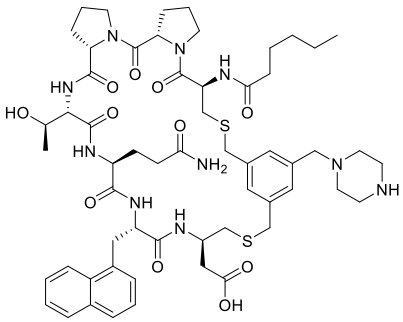
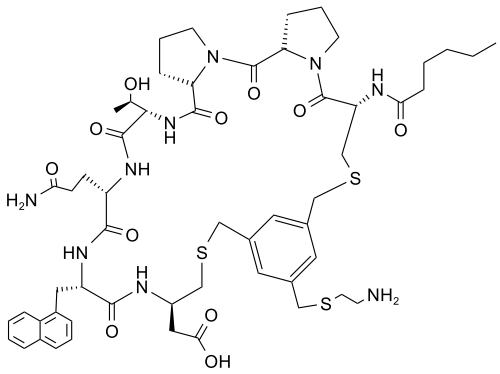
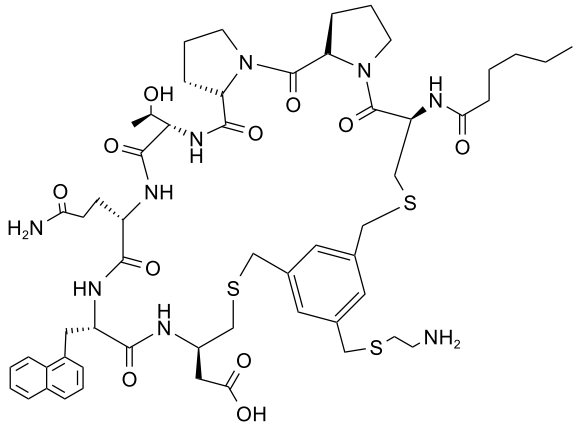
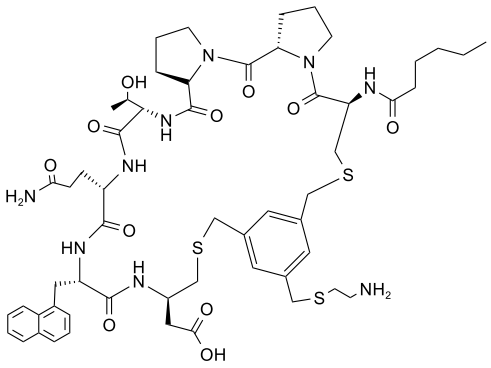
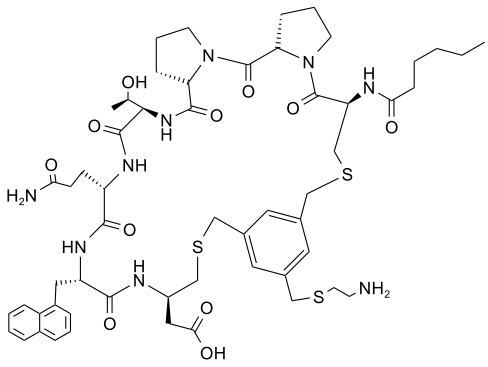
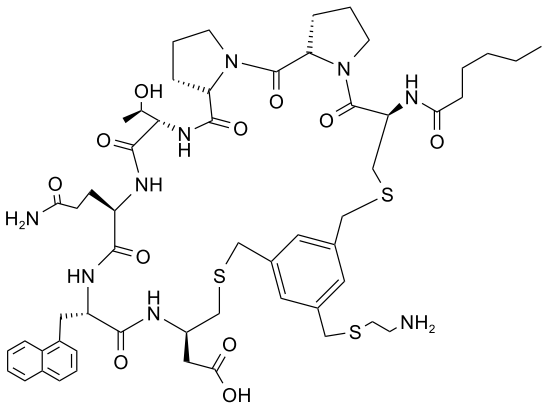
(2) L is selected from any of the following segments:

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, or

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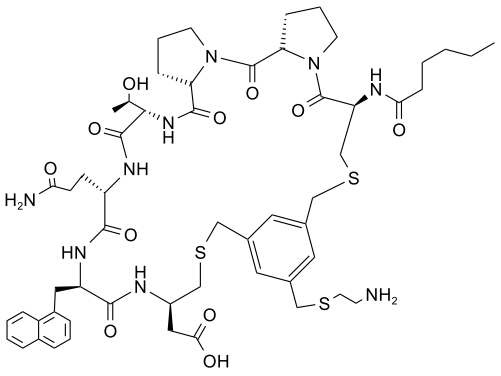
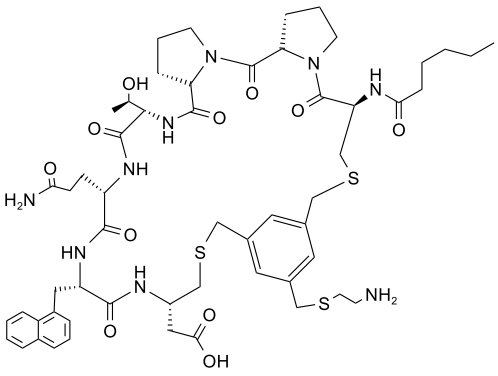
15. The polypeptide compound of claim 13, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is selected from any of the following compounds:


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16. A polypeptide compound, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is represented by formula III:

D-L'-R

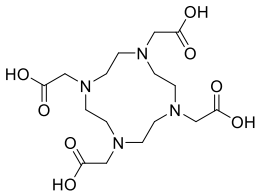
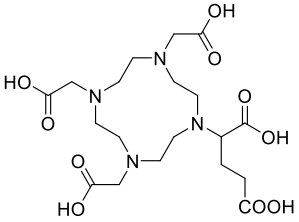
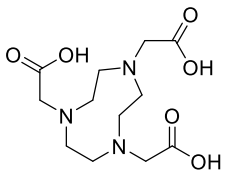
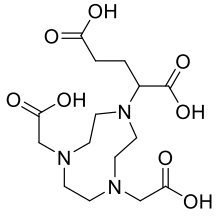
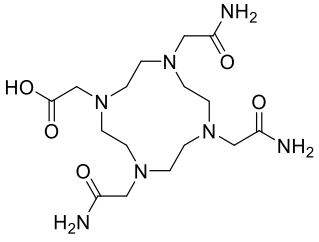
III

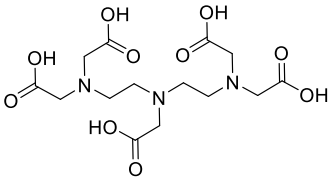
D is as defined in any one of claims 13-15;

L' is a group formed by the loss of a H atom by an amino group on L as defined in any one of claims 13-15; and

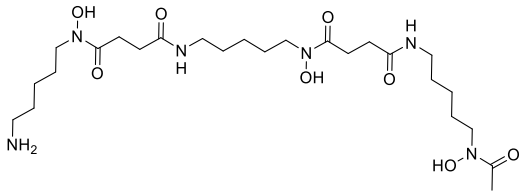
R is a group with the function of chelating metal ions.

17. The polypeptide compound of claim 16, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein R is a group formed by the loss of H or hydroxyl by a chelating agent shown below:

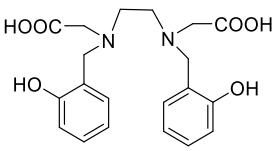

(DOTA), 
(DOTAGA), 
(NOTA), 
(NOTAGA), 
(DOTAM),



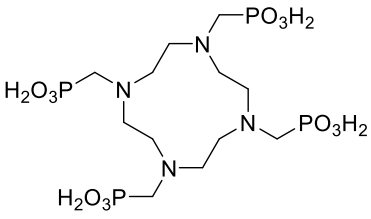
(DTPA),



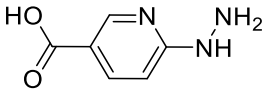
(DFO),

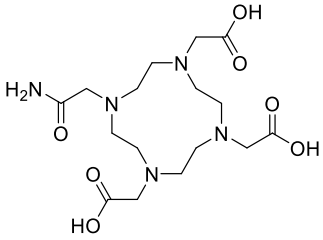


(HBED),

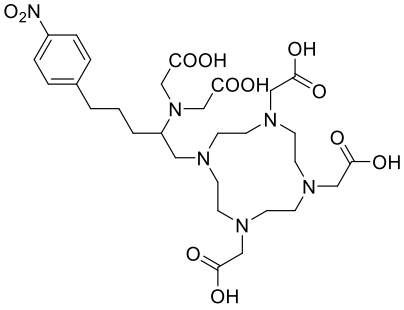


(DOTP),



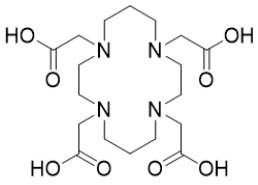


(HYNIC),

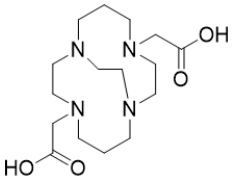


(PSC),

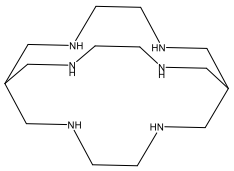
(3P-C-DEPA),



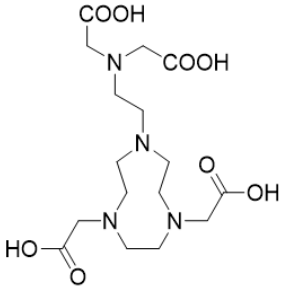
(TETA),



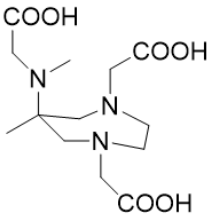
(CB-TE2A),



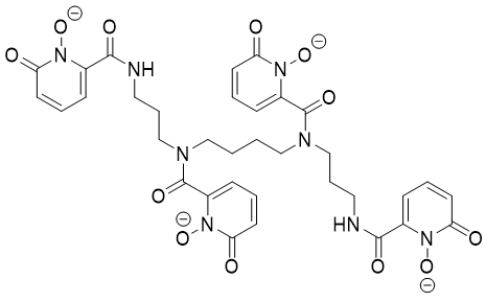
(Sarcophagine),

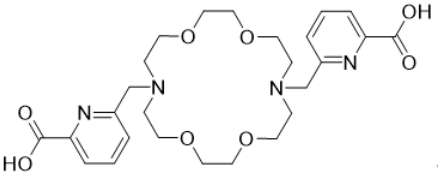


(NETA),

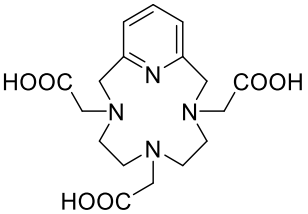


(DATA),



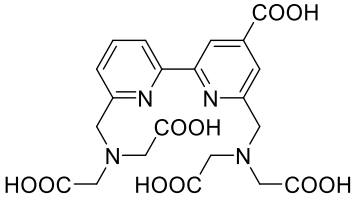


(HOPO),

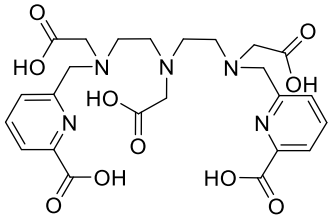


(Macropa),

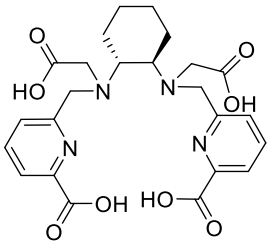
(PCTA),



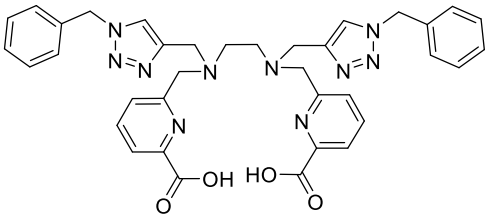
(BPCA),



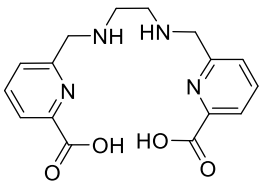
(H5decapa),



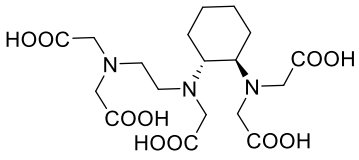
(H5CHXoctapa),



(H2azapa),

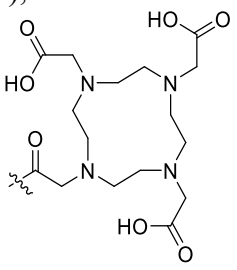


(H2dedpa), and

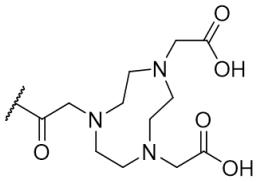


(CHX-A00-DTPA);

wherein R is preferably

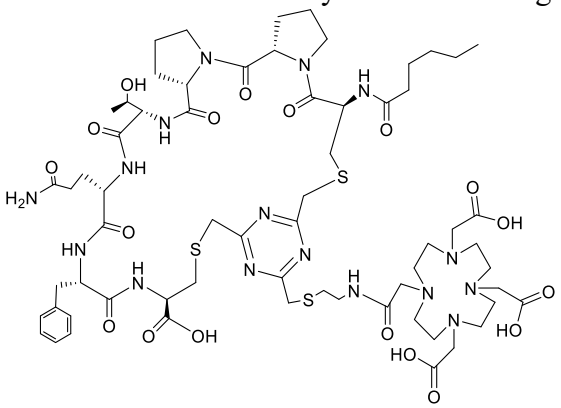


or

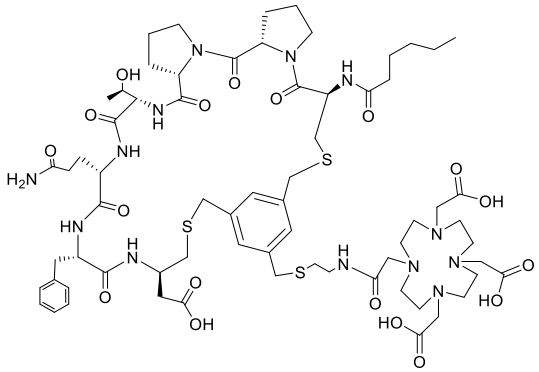


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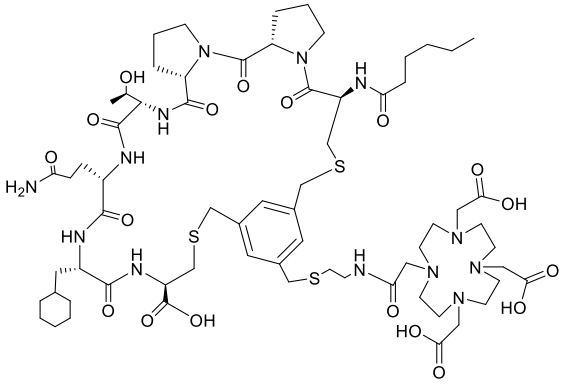
18. The polypeptide compound of claim 16, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is selected from any of the following compounds:



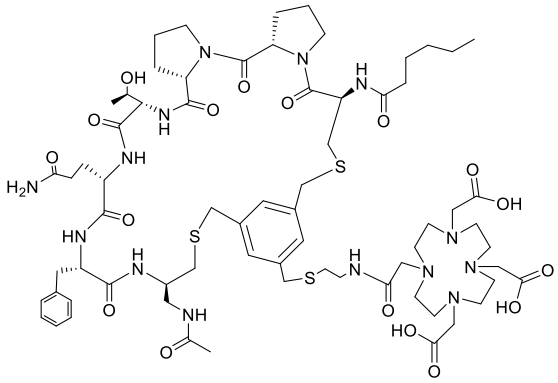
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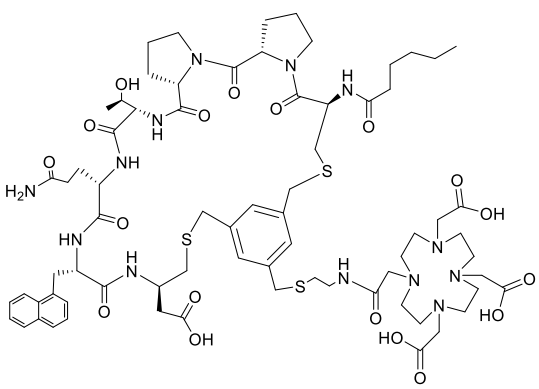
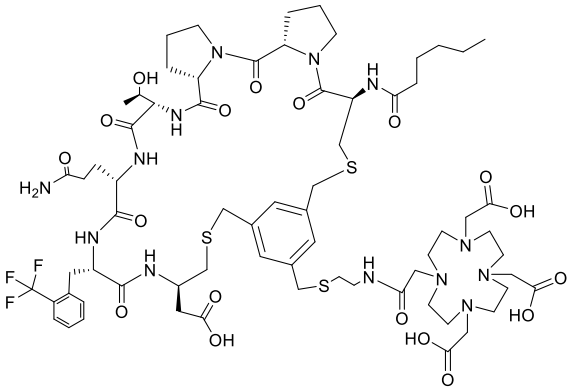
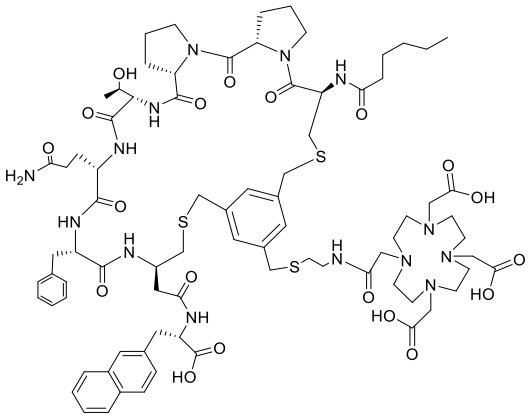
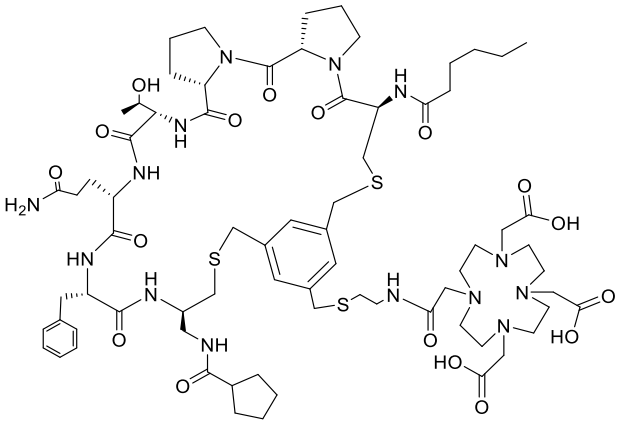
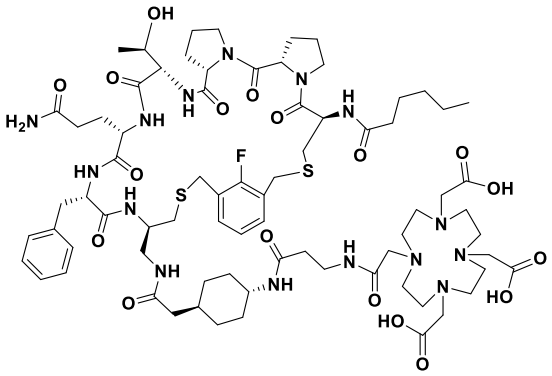
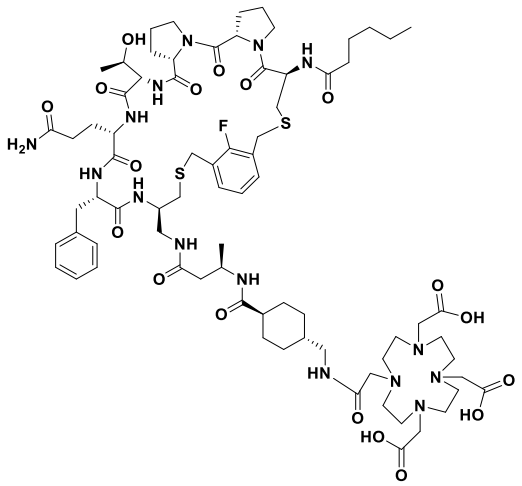
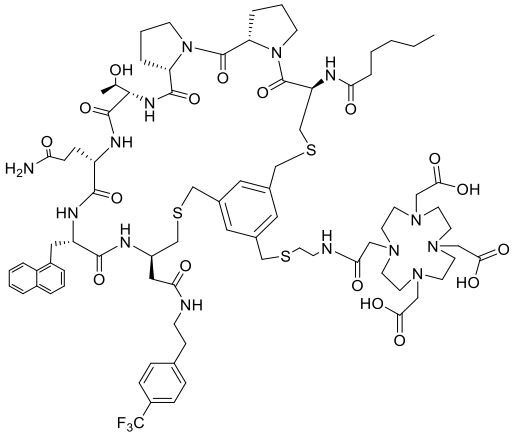
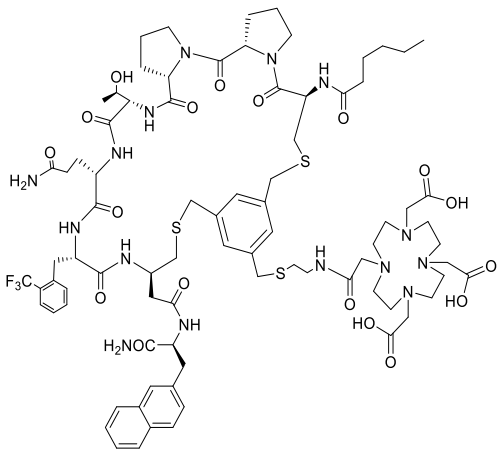
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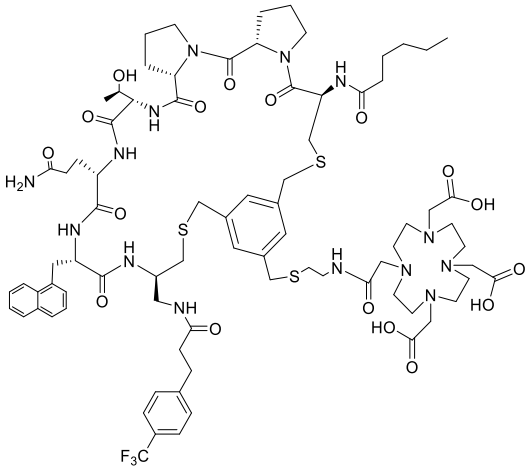
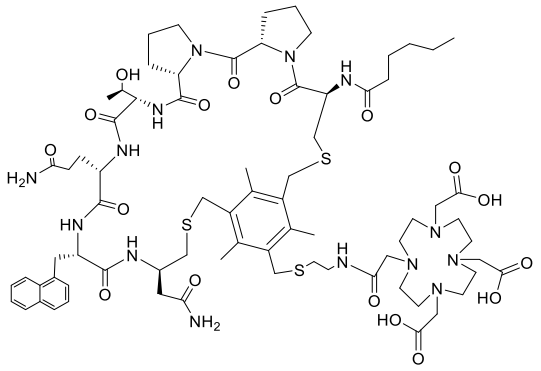
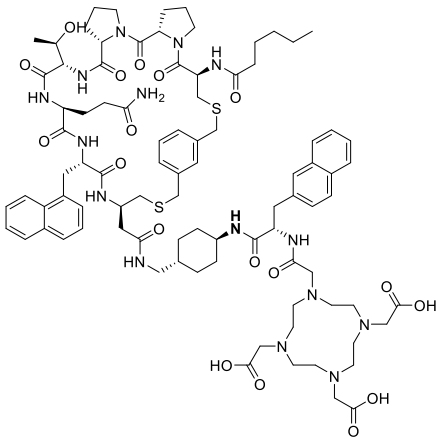
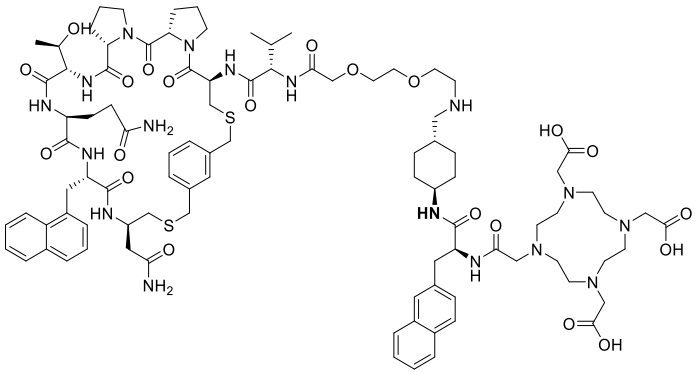
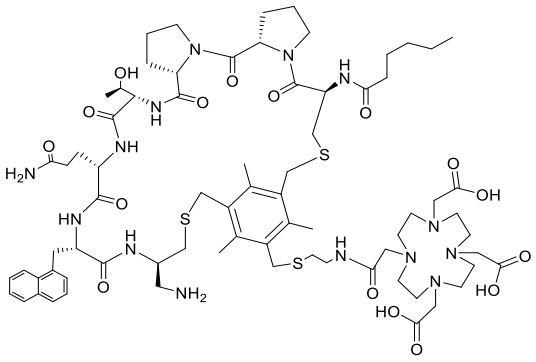
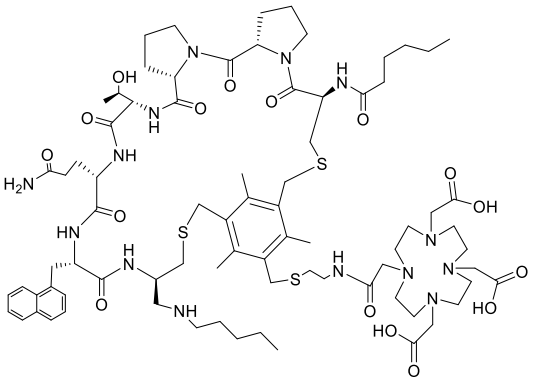


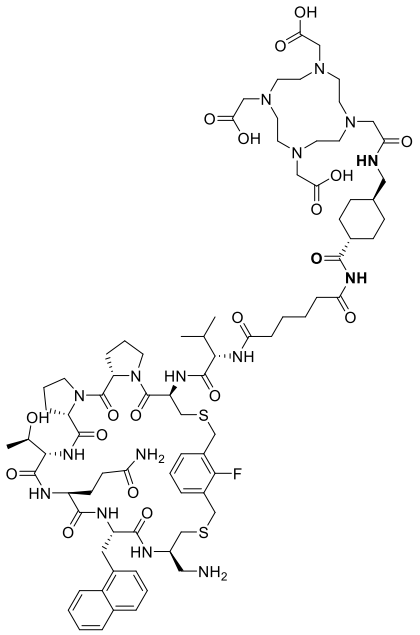
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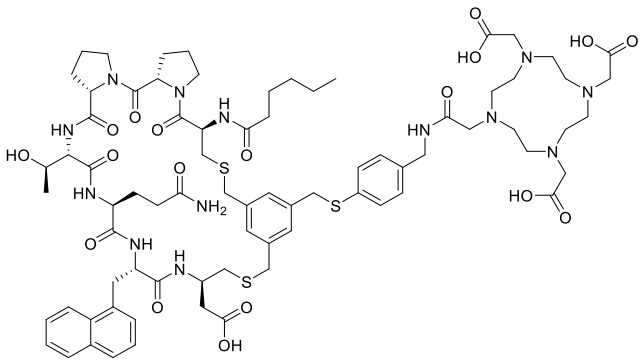
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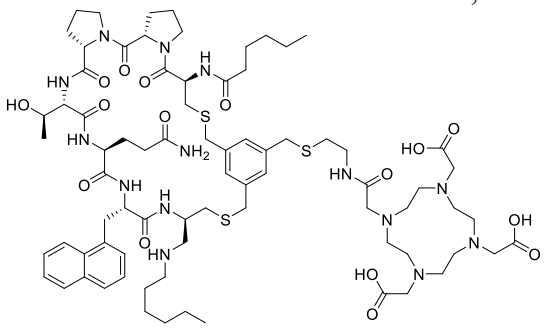

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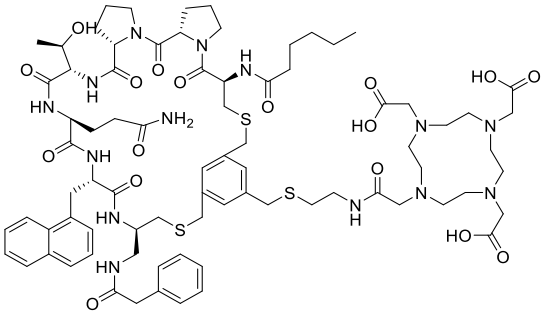
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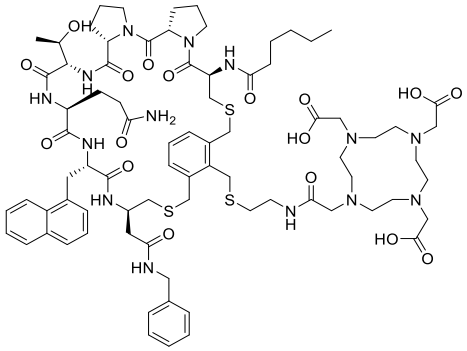
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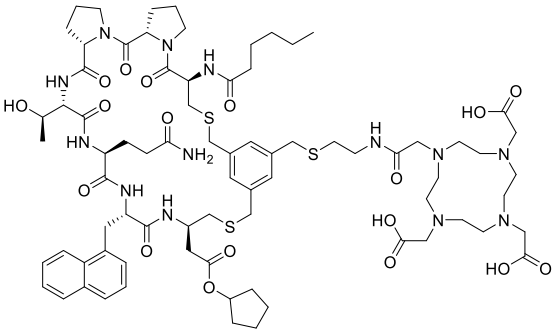
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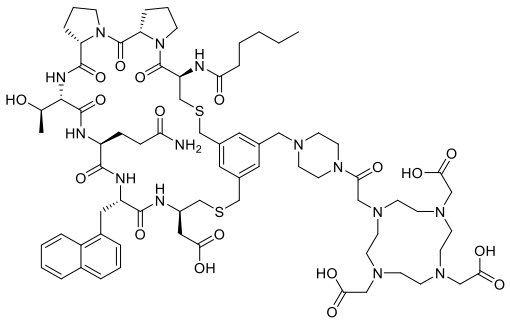
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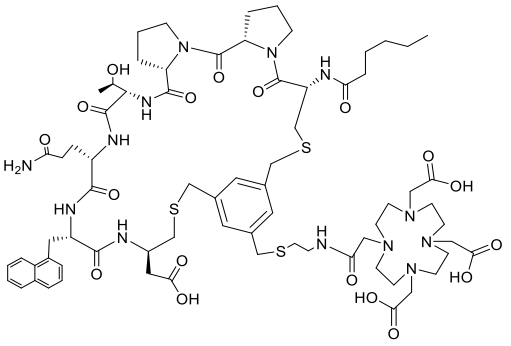
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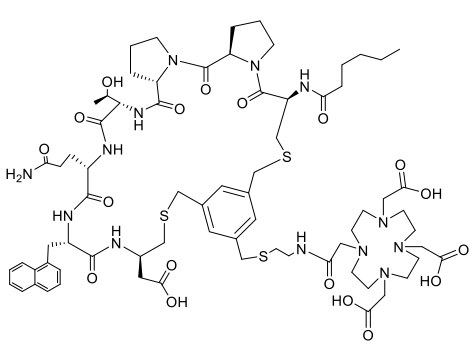
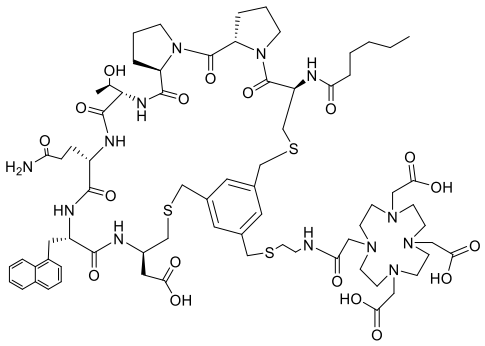
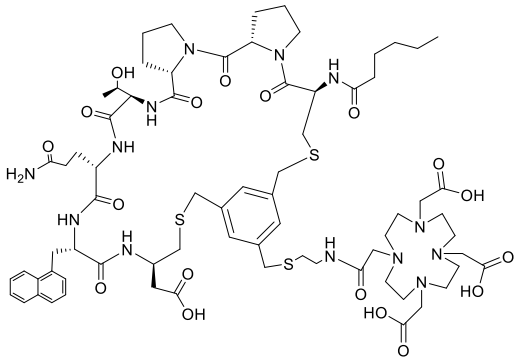
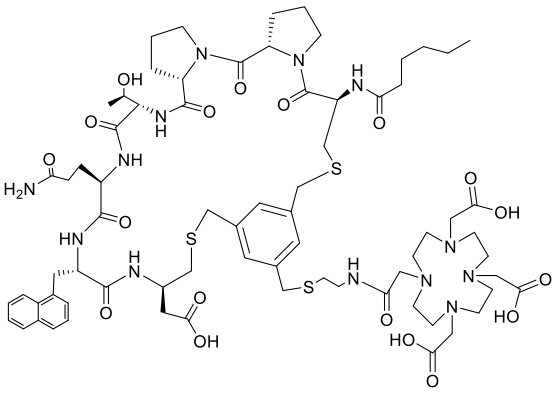
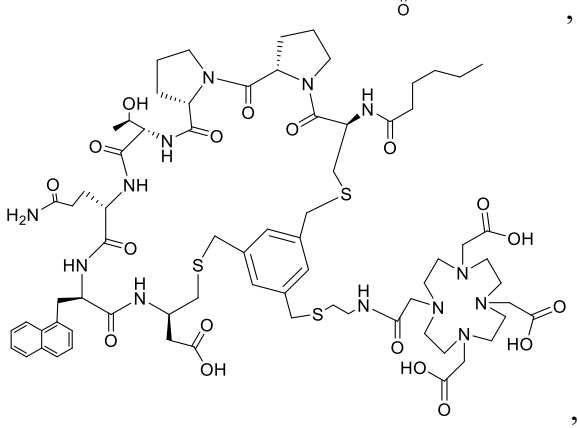
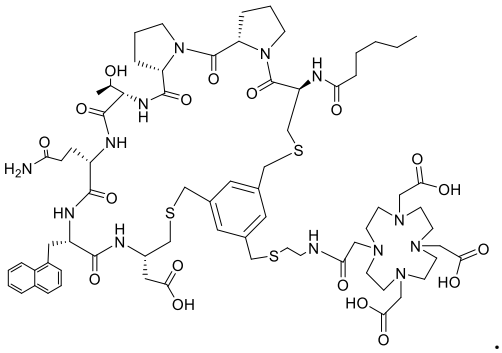
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19. A polypeptide compound, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is represented by formula V:

[D-L'-R]·M

V

D is as defined in any one of claims 13-15;

L' is as defined in any one of claims 13-15;

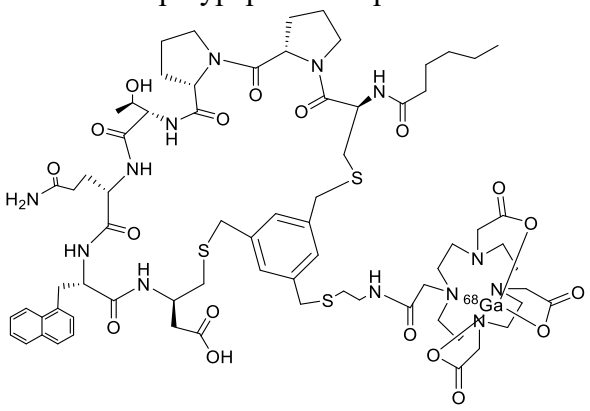
R is as defined in any one of claims 16-18;

M is a diagnostically active radionuclide or a therapeutically active radionuclide; the diagnostically active radionuclide is selected from ^{18}F, ^{99m}Tc, ^{89}Zr, ^{111}In, ^{67}Ga, ^{68}Ga, ^{43}Sc, ^{44}Sc,

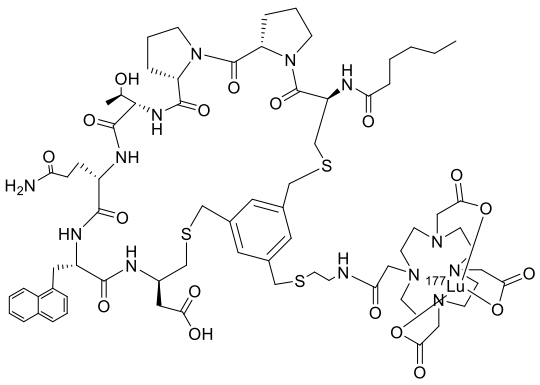
^{64}Cu, ^{86}Y, ^{152}Tb, ^{155}Tb, ^{203}Pb, ^{123}I, ^{124}I, ^{125}I, optionally ^{64}Cu, ^{68}Ga, ^{111}In, ^{18}F, ^{99m}Tc, ^{203}Pb, and ^{89}Zr; and the therapeutically active radionuclide is selected from ^{90}Y, ^{177}Lu, ^{225}Ac, ^{212}Pb, ^{188}Re, ^{227}Th, ^{131}I, ^{211}At, ^{161}Tb, ^{149}Tb, ^{153}Sm, ^{67}Cu, ^{47}Sc, optionally ^{90}Y, ^{177}Lu, ^{225}Ac, ^{212}Pb, and ^{161}Tb;

preferably,

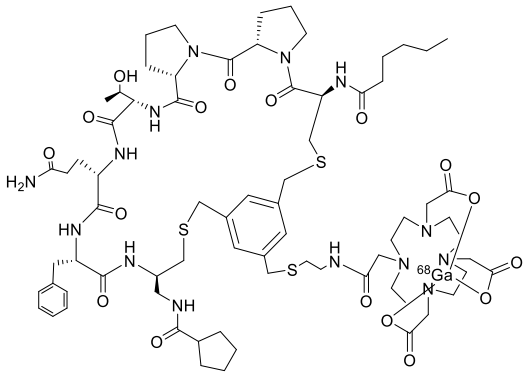
wherein the polypeptide compound is selected from any of the following compounds:



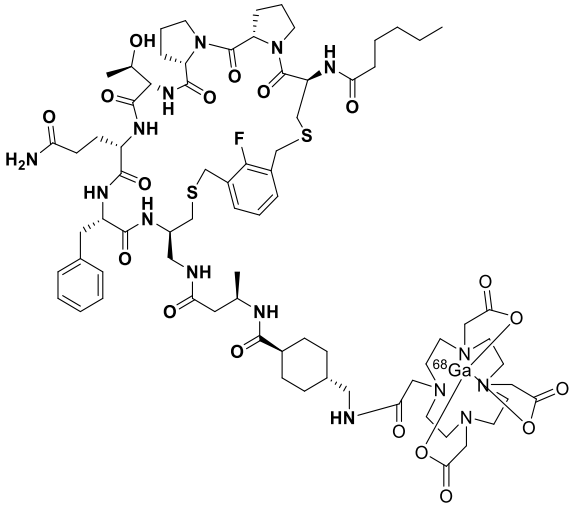
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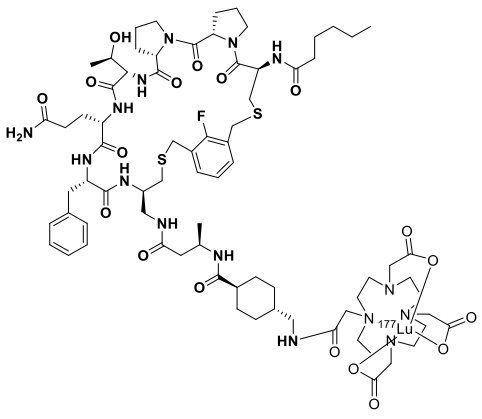
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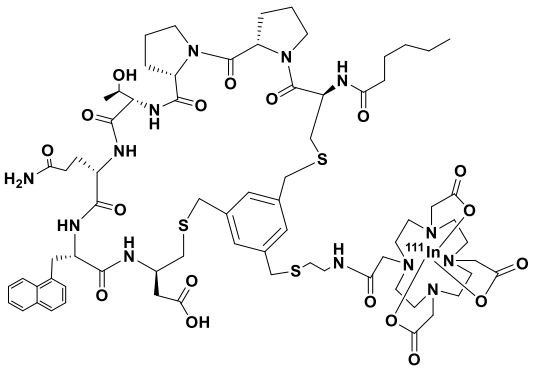
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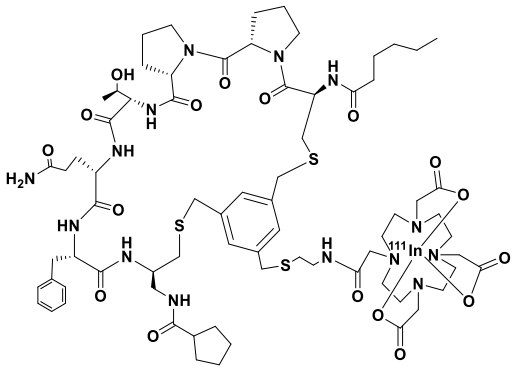
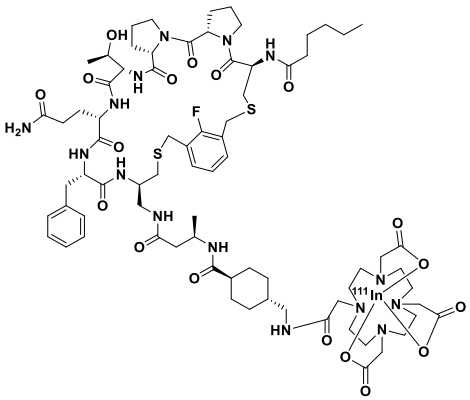
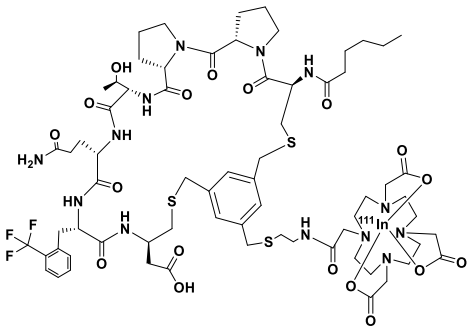
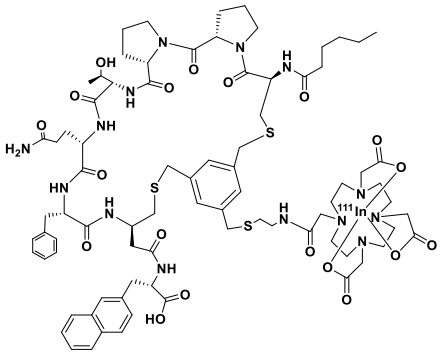
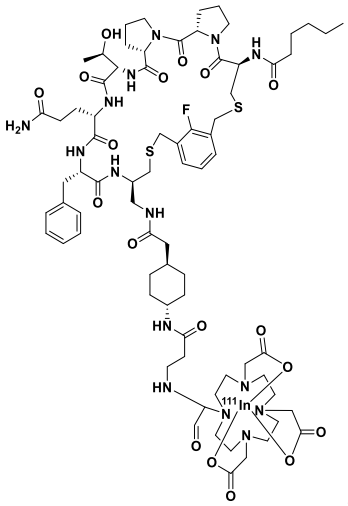
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20. A polypeptide compound, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, wherein the polypeptide compound is represented by formula VI:

[D-L'-R]·Q

VI

D is as defined in any one of claims 13-15;

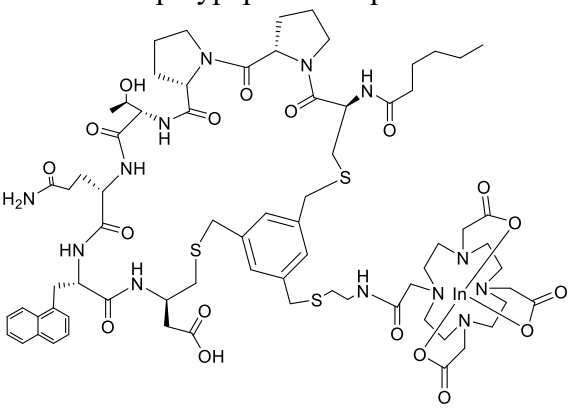
L' is as defined in any one of claims 13-15;

R is as defined in any one of claims 16-18;

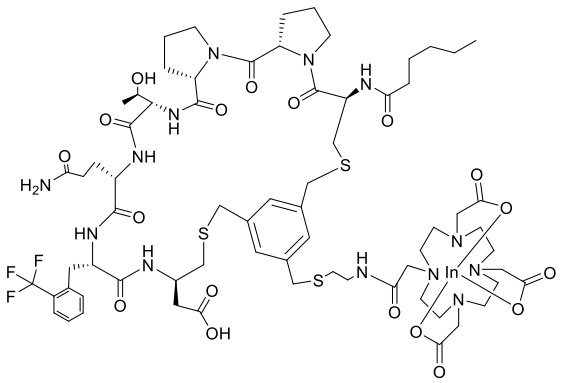
Q is a non-radionuclide; and the non-radionuclide is selected from In, Ga, Y and Lu, optionally In;

preferably,

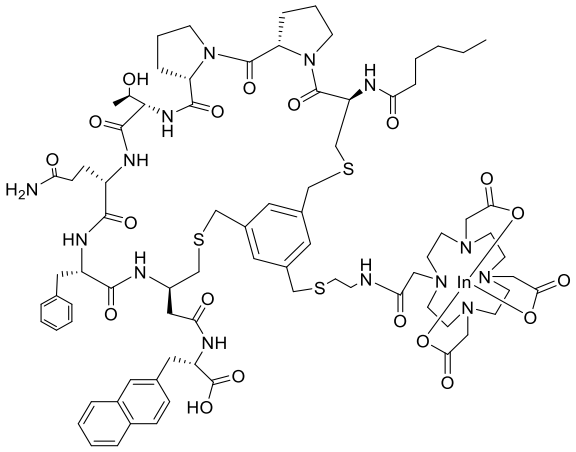
wherein the polypeptide compound is selected from any of the following compounds:



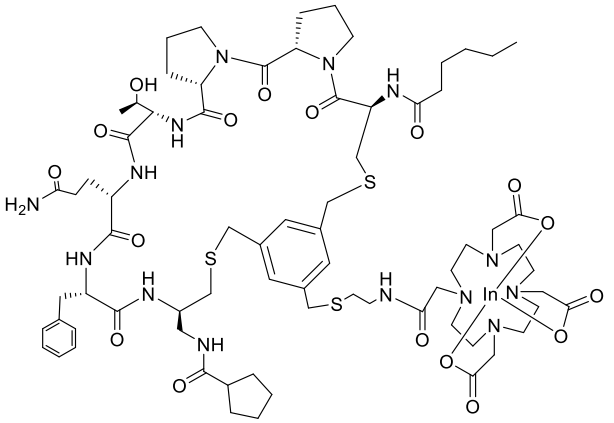
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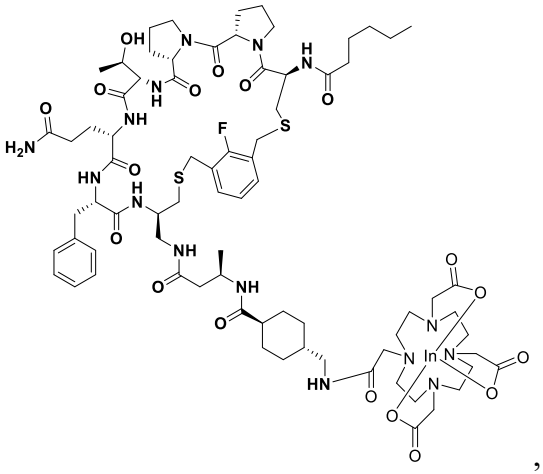
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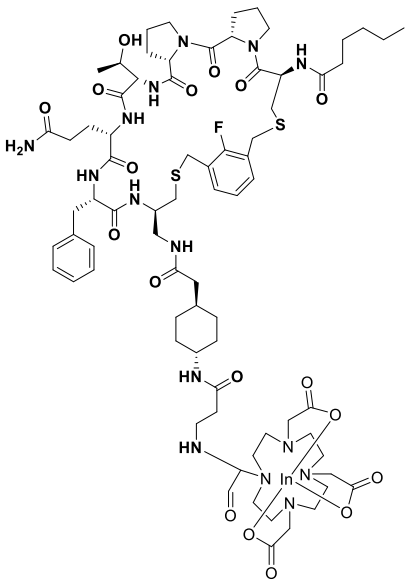
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21. A pharmaceutical composition comprising a substance X, and a pharmaceutically

acceptable adjuvant; wherein the substance X is a polypeptide compound of any one of claims 1-20, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof.

22. A kit comprising a substance X, and instructions for use; wherein the substance X is a polypeptide compound of any one of claims 1-20, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof.

23. Substance X for use of a medicament for the diagnosis or treatment of a FAP protein-associated disease, wherein the substance X is a polypeptide compound of any one of claims 1-20, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof, and the FAP protein-associated disease is preferably a tumor.

24. The substance X for use of claim 23, wherein the tumor is selected from bronchogenic carcinoma, hidradenocarcinoma, breast cancer, ovarian cancer, prostate cancer, melanoma, oral squamous carcinoma, brain tumor, esophageal cancer, gastric cancer, liver cancer, pancreatic cancer, colorectal cancer, lung cancer, small cell lung cancer, non-small cell lung cancer, renal cancer, skin cancer, glioblastoma, neurilemmoma, meningioma, neuroblastoma, mesothelioma, sarcoma, liposarcoma, chondroioma, osteoma, osteosarcoma, semaginoblastoma, testicular tumor, uterine cancer, head and neck cancer, multiple myeloma, malignant lymphoma, polycythemia vera, leukemia, thyroid cancer, ureter tumor, bladder tumor, gall bladder cancer, cholangiocarcinoma, choriocarcinoma and pediatric tumor.

25. Substance X for use of a FAP inhibitor, wherein the substance X is a polypeptide compound of any one of claims 1-20, a pharmaceutically acceptable salt thereof, a solvate thereof or a solvate of a pharmaceutically acceptable salt thereof.