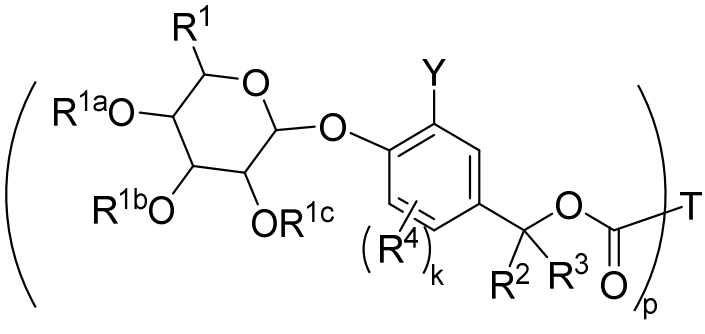
CLAIMS

1. A compound represented by structural formula (I), or a pharmaceutically acceptable salt thereof:



(I),

wherein:

T is a moiety comprising a Stimulator of Interferon Genes (STING) agonist,

p is 1 or 2,

each instance of R^1 is independently CH_2OR^{11} or $COOR^{12}$,

each instance of R^{1a}, R^{1b}, R^{1c}, and R^{11} is independently H or a hydroxyl protecting group,

each instance of R^{12} is independently H or a carboxyl protecting group,

each instance of R^2 and R^3 is independently H or alkyl, or R^2 and R^3 together with a carbon atom to which they are attached form a cycloalkyl,

each instance of R^4 is independently selected from halogen, alkyl, CN, and NO_2,

each instance of k is independently 0, 1, 2, or 3,

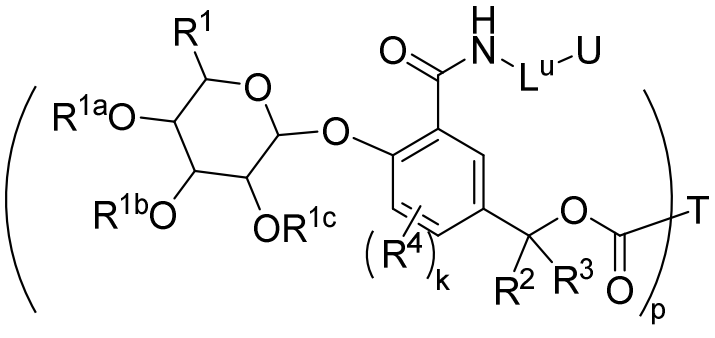
each instance of Y is independently selected from H, -C(O)NHL^{u}U, - C(O)NR'(L^{u}U), - C(O)N(L^{u}U)$_2$ and -C(O)OH,

each instance of L^u is a first linker,

each instance of U is independently selected from H, alkyl, amino, azido, acetylenyl, alkylamino, heterocyclyl, alkoxy, -COOH, -P(O)(OH)$_2$, -OH, -DBCO and a saccharide, and

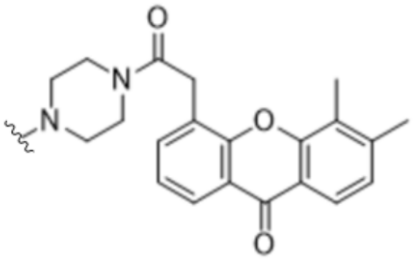
each instance R' is independently selected from alkyl, cycloalkyl, alkoxy, alkylthio, mono- or di-alkylamino, heteroaryl, and aryl.

2. The compound of claim 1, wherein the compound of formula (I) is a compound of formula (Ia) or a pharmaceutically acceptable salt thereof:

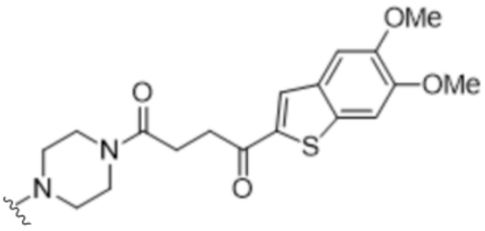


(Ia).

3. The compound of claim 1 or 2, wherein p is 1 and T is a moiety represented by one of the following structural formulas:



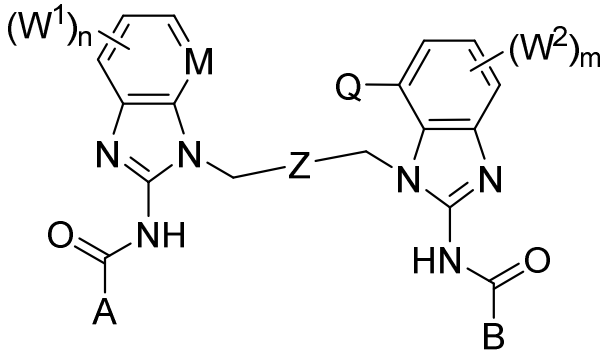
(IIa) and



(IIb),

wherein  is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I).

4. The compound of claim 1 or 2, wherein T is a moiety represented by Formula (IIc) or a pharmaceutically acceptable salt thereof:



(IIc),

wherein:

T is coupled to the -C(O)OCR^{2}R^3- fragment of formula (I) via W^1, W^2, A, B, or L^2,

M is N, C(X^{a}R^a) or C(X^{b}L^{1}L^2-),

Q is -X^{a}R^a or -X^{b}L^{1}L^2-,

each instance of W^1 and W^2 is independently selected from alkyl, amino, amido, carboxylic acid, ester, and hydrazido, e.g. -C(O)NH-alkyl-N(alkyl)- or -C(O)NH-N(alkyl)-;

n and m are each independently 0, 1, 2, or 3,

Z is selected from alkylene, alkenylene, and alkynylene,

A and B are each independently aryl or heteroaryl,

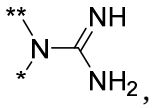
X^a and X^b are each independently selected from CH_2, NH, O, and S,

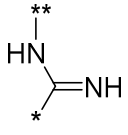
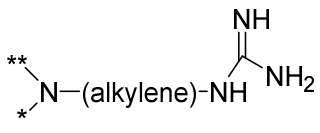
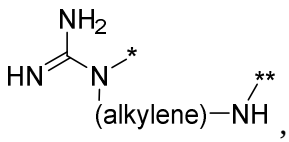
R^a is selected from H, alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocyclyl, aryl, heteroaryl, heterocyclyl, aralkyl, heteroaralkyl, heterocyclylalkyl, cycloalkylalkyl, -(alkylene)carboxylic acid, -(alkylene)guanidino, -(alkylene)NHC(O)CH_2guanidino, -(alkylene)O(alkylene)guanidino and -O(alkylene)guanidino,

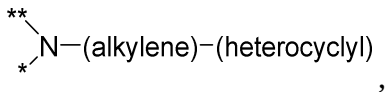
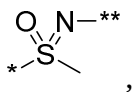
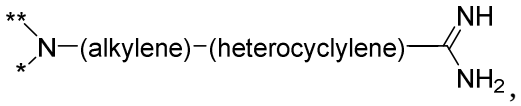
L^1 is selected from alkylene, heteroalkylene, alkenylene, alkynylene, cycloalkylene, heterocyclylene, arylene, and heteroarylene,

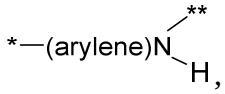
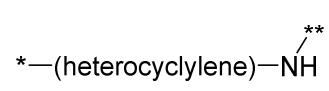
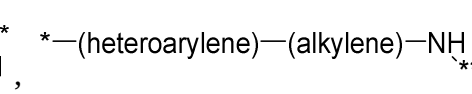
L^2 is a bond, or a linker moiety coupled to L^1 and comprising a nitrogen atom coupled to the -C(O)O(CR^{2}R^3)- fragment of the compound represented by structural formula (I).

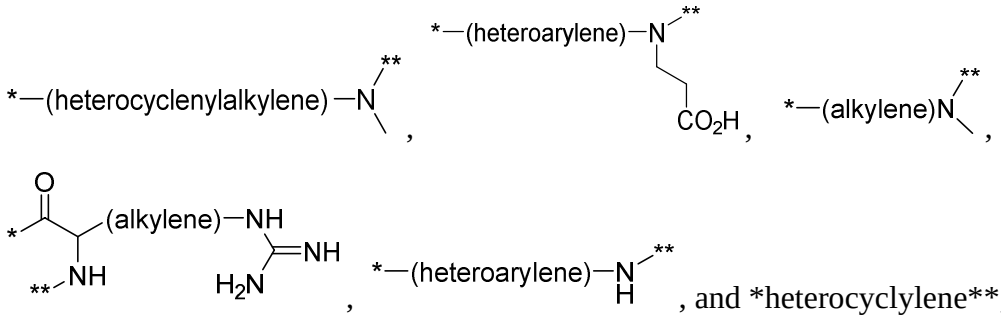
5. The compound of claim 4, wherein X^a is O, and/or R^a is selected from $C_{1\text{-}6}$ alkyl, heterocyclylalkyl, cycloalkylalkyl, -(alkylene)carboxylic acid, and -(alkylene)guanidino.

6. The compound of claim 4 or 5, wherein L^2 is selected from a bond, ,

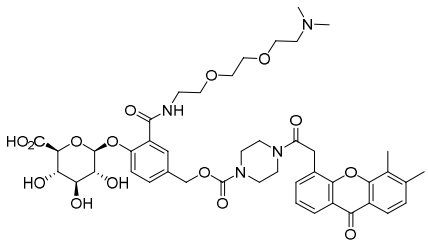
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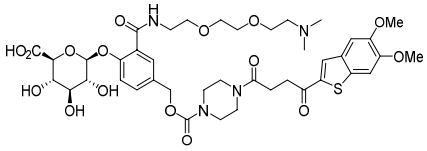
, , ,

, , ,



, and *heterocyclylene**, and wherein * is the point of connection to L^1 and ** is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I).

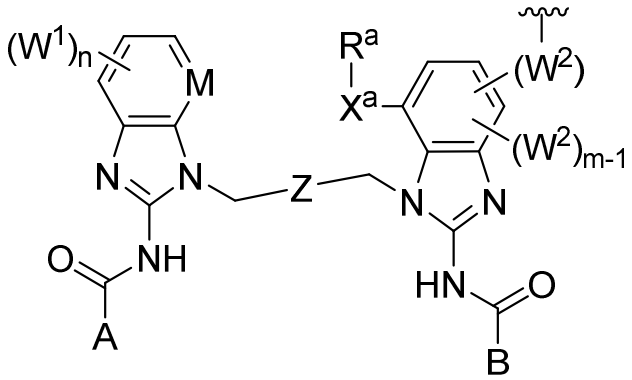
7. The compound of claim 3, wherein the compound is 

or 

.

8. The compound of claim 4 or 5, wherein one of the following (A) to (D) applies:

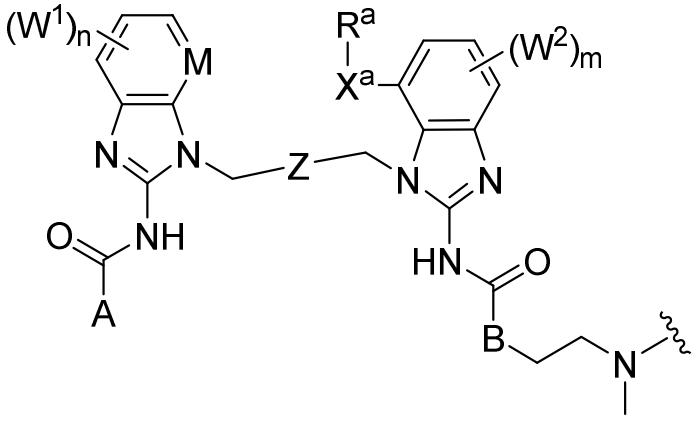
(A): T is coupled to the -C(O)OCR^2R^3- fragment of the compound represented by structural formula (I) via W^2, and T is a moiety represented by formula (IIc1):



(IIc1),

wherein  is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I);

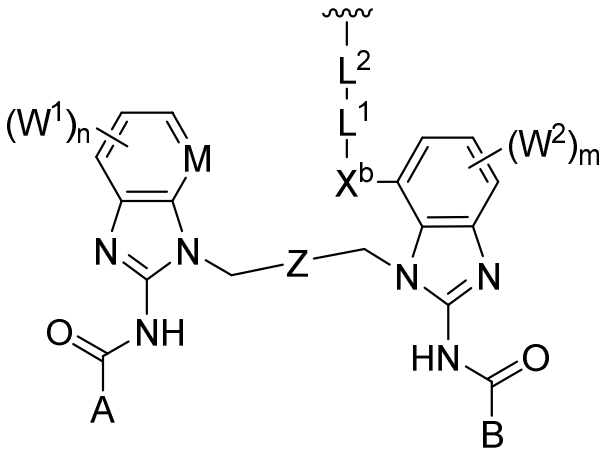
(B): T is coupled to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I) via B, and T is a moiety represented by formula (IIc2):



(IIc2),

wherein  is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I);

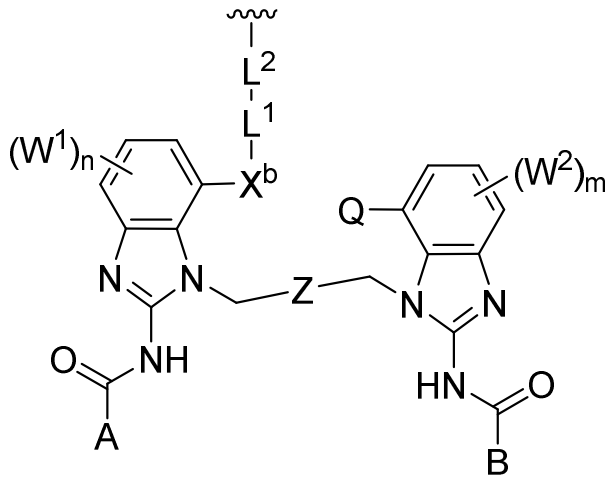
(C): T is coupled to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I) via L^2, and T is a moiety represented by formula (IIc3):



(IIc3),

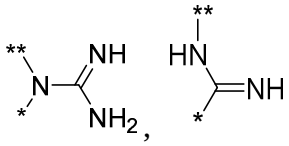
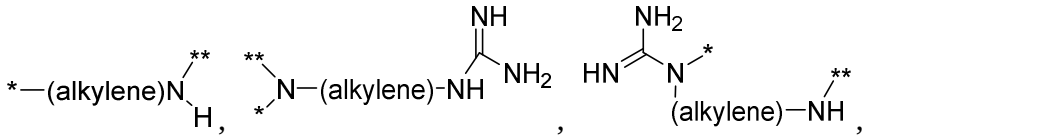
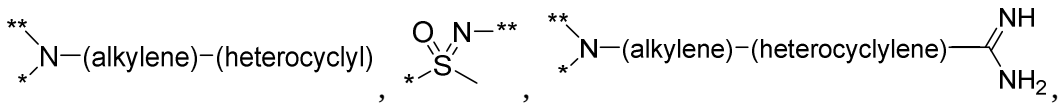
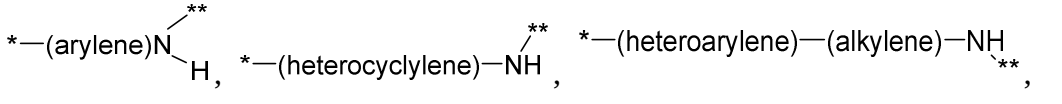
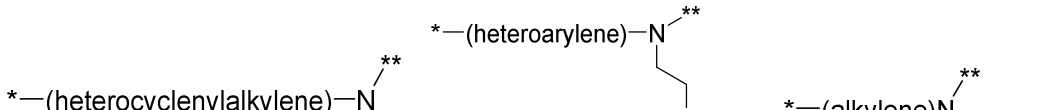
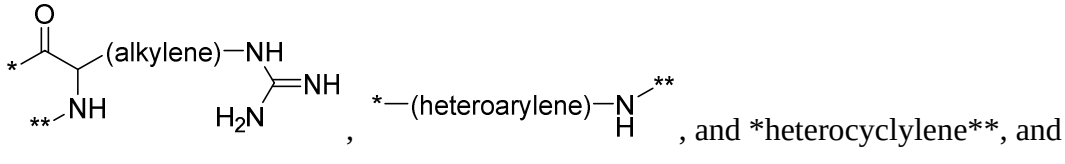
wherein  is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I); or

(D): T is coupled to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I) via L^2, and T is a moiety represented by formula (IIc4):



(IIc4),

wherein  is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I).

9. The compound of claim 8, wherein L^2 is selected from a bond, , , , , , , , and *heterocyclylene**, and wherein * is

the point of connection to L^1 and ** is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I).

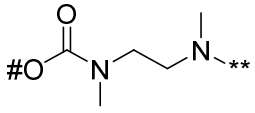
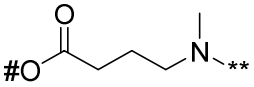
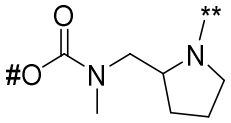
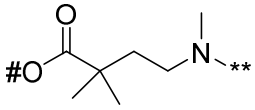
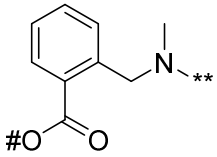
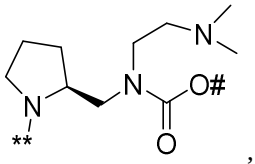
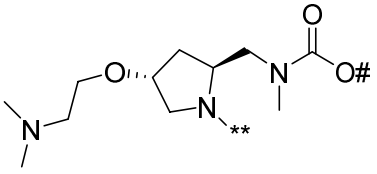
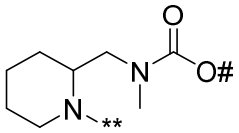
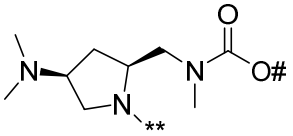
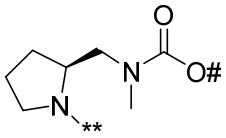
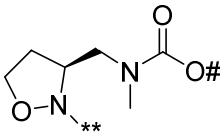
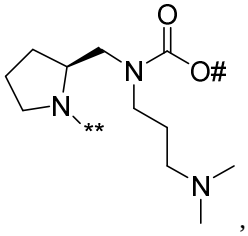
10. The compound of claim 8, wherein L^2 is a second linker comprising $^{\#}OC(O)NR^5$-L^4-NR^6, $^{\#}OC(O)$-L^4-NR^6, or $^{\#}OC(O)NR^5$-L^4-(heterocyclylene), wherein:

the heterocyclylene comprises a nitrogen atom connected to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I), and wherein # is the point of connection to L^1,

each instance of L^4 is independently alkylene or arylalkylene, and

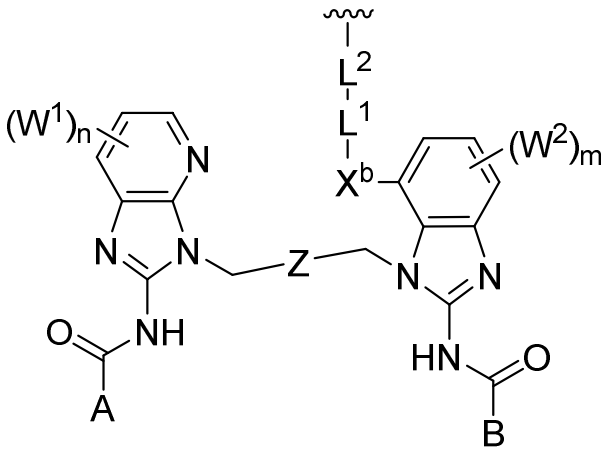
each instance of R^5 is independently selected from H, alkyl, and dialkylaminoalkyl, and

each instance of R^6 is independently selected from H, alkyl, and dialkylaminoalkyl.

11. The compound of claim 10, wherein L^2 is selected from , , , , , , , , , , , and ,

wherein ** indicates the connection point to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I).

12. The compound of claim 1, wherein p is 1 and T is a moiety represented by formula (IIc5):



(IIc5)

wherein:

T is coupled to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural Formula (I) via L^2,

each instance of W^1 and W^2 is independently selected from alkyl, amino, amido, carboxylic acid, ester, and hydrazido,

n and m are each independently 0, 1, 2, or 3,

Z is selected from alkylene, alkenylene, and alkynylene,

A and B are each independently aryl or heteroaryl,

X^a and X^b are each independently selected from CH_2, NH, O, and S,

R^a is selected from H, alkyl, alkenyl, alkynyl, heteroalkyl cycloalkyl, heterocyclyl, aryl, heteroaryl, heterocyclyl, aralkyl, heteroaralkyl, heterocyclylalkyl, cycloalkylalkyl, -(alkylene)carboxylic acid , -(alkylene)guanidino, -(alkylene)NHC(O)CH_2guanidino, -(alkylene)O(alkylene)guanidino and -O(alkylene)guanidino,

L^1 is selected from alkylene, heteroalkylene, alkenylene, alkynylene, cycloalkylene, heterocyclylene, arylene, and heteroarylene,

L^2 is a bond, a linker moiety coupled to L^1 and comprising a nitrogen atom coupled to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I), or a second linker,

wherein  is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I).

13. The compound of claim 12, wherein L^2 is a second linker comprising $^{\#}OC(O)NR^5$-L^4-

NR^6, $^{\#}OC(O)$-L^4-NR^6, or $^{\#}OC(O)NR^5$-L^4-(heterocyclylene), wherein:

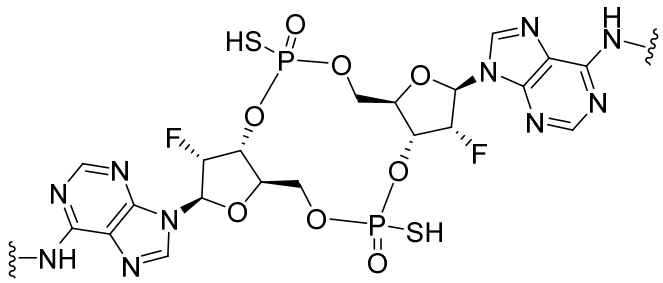
the heterocyclylene comprises a nitrogen atom connected to the -$C(O)O(CR^2R^3)$- fragment of the compound represented by structural formula (I), and wherein # is the point of connection to L^1,

each instance of L^4 is independently alkylene or arylalkylene,

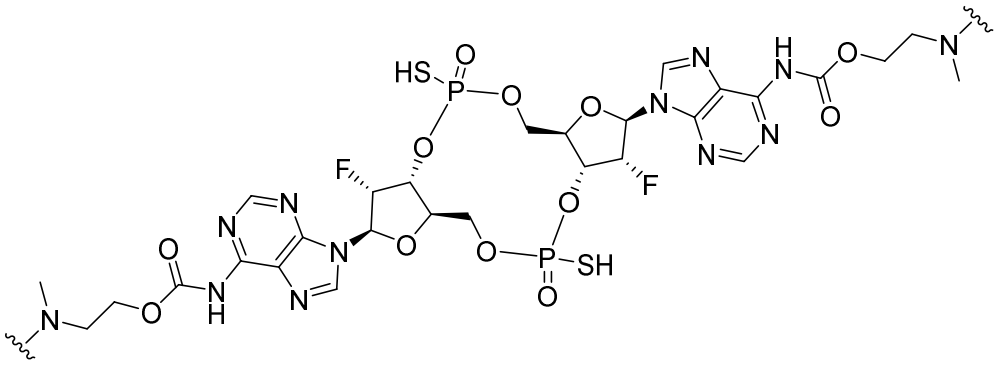
each instance of R^5 is independently selected from H, alkyl, and dialkylaminoalkyl, and

each instance of R^6 is independently selected from H, alkyl, and dialkylaminoalkyl.

14. The compound of claim 1 or 2, wherein p is 2 and T is a moiety represented by one of the following structural formulas:



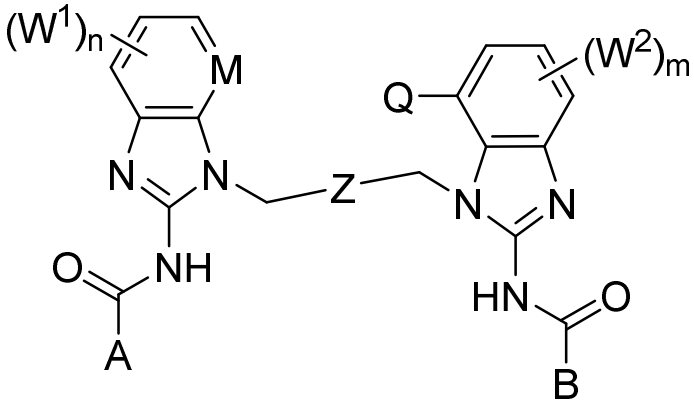
(IId) and



(IIe),

wherein each  is a point of connection to the -$C(O)O(CR^2R^3)$- fragments of the compound represented by structural formula (I),

or T is a moiety represented by structural formula (IIf), wherein T is coupled to each -$C(O)OCR^2R^3$- fragment of formula (I) independently via two of W^1, W^2, A, B, or L^2:



(IIf),

wherein:

M is N, C(X^aR^a), or C($X^bL^1L^2$-),

Q is -X^aR^a or -$X^bL^1L^2$-,

each instance of W^1 and W^2 is independently selected from alkyl, amino, amido, carboxylic acid, ester, and hydrazido,

n and m are each independently 0, 1, 2, or 3,

Z is selected from alkylene, alkenylene, and alkynylene,

A and B are each independently 5-membered heteroaryl,

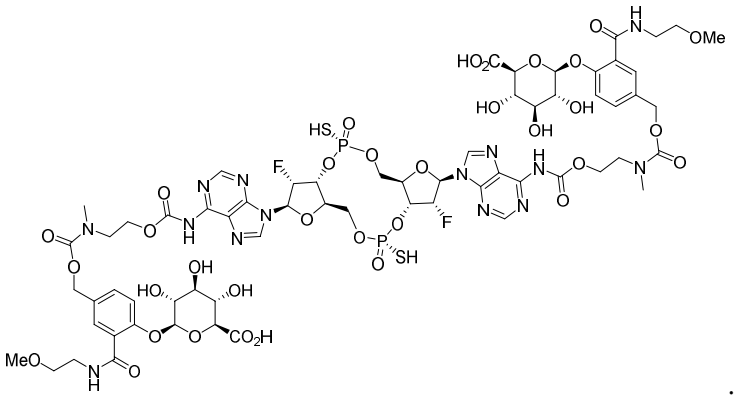
X^a and X^b are each independently selected from CH_2, NH, O, and S,

each instance of R^a is independently selected from H, alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocyclyl, aryl, heteroaryl, heterocyclyl, aralkyl, heteroaralkyl, heterocyclylalkyl, cycloalkylalkyl, -(alkylene)carboxylic acid, -(alkylene)guanidino, -(alkylene)NHC(O)CH_2guanidino, -(alkylene)O(alkylene)guanidino and -O(alkylene)guanidino,

each instance of L^1 is independently selected from alkylene, heteroalkylene, alkenylene, alkynylene, cycloalkylene, heterocyclylene, arylene, and heteroarylene,

each instance of L^2 is independently selected from a bond, a linker moiety coupled to the respective L^1 and comprising a nitrogen atom coupled to the respective -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I), or a second linker.

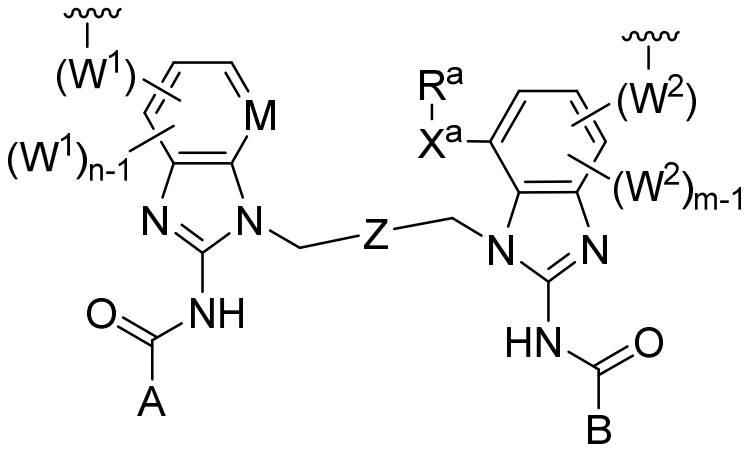
15. The compound of claim 14, wherein the compound is



.

16. The compound of claim 14, wherein one of the following (A) to (C) applies:

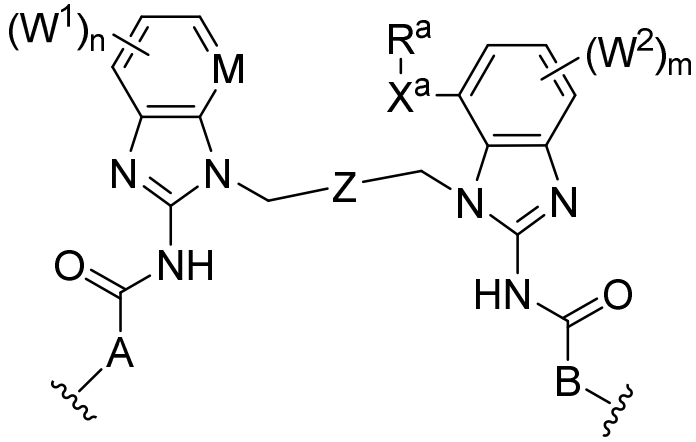
(A): T is coupled to each -C(O)O(CR^2R^3)- fragment via W^1 and W^2, and T is a moiety represented by formula (IIf1):



(IIf1),

wherein each  is a point of connection to the -C(O)O(CR^2R^3)- fragments of the compound represented by structural formula (I);

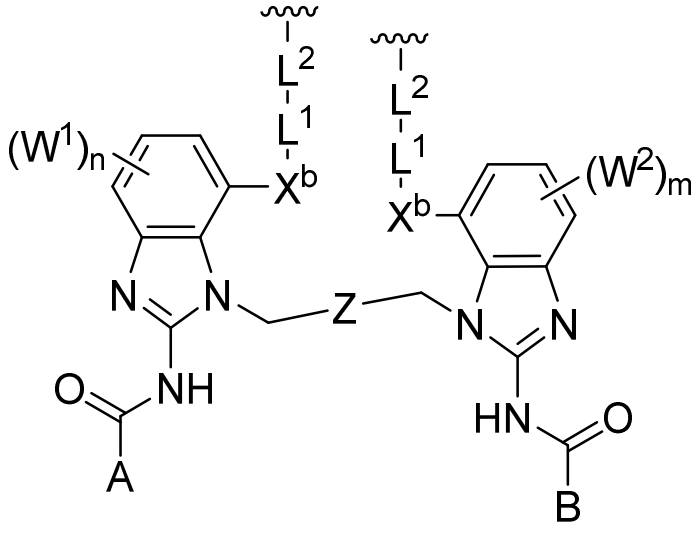
(B): T is coupled to each -C(O)O(CR^2R^3)- fragment via A and B, and T is a moiety represented by formula (IIf2):



(IIf2),

wherein each ~~~ is a point of connection to the -C(O)O(CR^2R^3)- fragments of the compound represented by structural formula (I); or

(C): T is coupled to each -C(O)O(CR^2R^3)- fragment via two L^2, and T is a moiety represented by formula (IIf3):



(IIf3),

wherein each ~~~ is a point of connection to the -C(O)O(CR^2R^3)- fragments of the compound represented by structural formula (I).

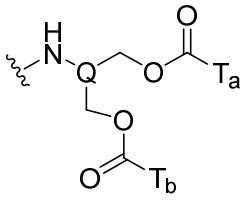
17. The compound of claim 16, wherein each L^2 is independently a second linker comprising $^{\#}OC(O)NR^5$-L^5-NR^6, $^{\#}OC(O)$-L^4-NR^6, or $^{\#}OC(O)NR^5$-L^5-(heterocyclylene), wherein the heterocyclylene comprises a nitrogen atom connected to the respective -C(O)O(CR^2R^3)- fragment

of the compound represented by structural formula (I), wherein # is the point of connection to the respective L^1,

each L^5 is independently alkylene or aralkylene, and

each R^5 and each R^6 are each independently selected from H, alkyl, and dialkylaminoalkyl.

18. The compound of claim 1 or 2, wherein p is 1 and T is a moiety represented by formula (III):



(III),

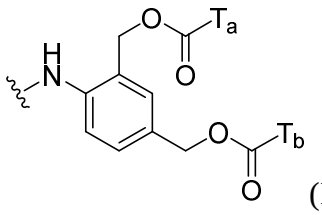
wherein:

Q is a branched linker moiety,

T_a and T_b are each independently a moiety comprising a Stimulator of Interferon Genes (STING) agonist, and

 is a point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I).

19. The compound of claim 18, wherein T is a moiety represented by formula (IIIa):

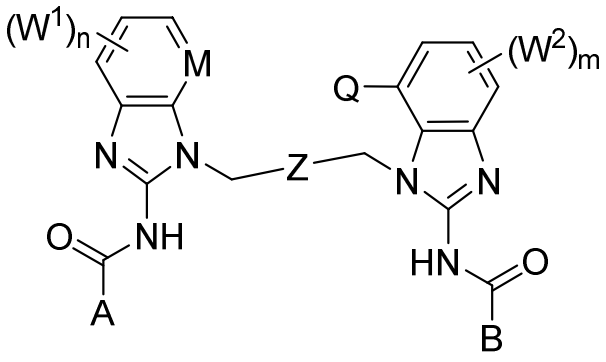


(IIIa),

wherein:

 is the point of connection to the -C(O)O(CR^2R^3)- fragment of the compound represented by structural formula (I),

T_a and T_b are each independently a moiety represented by formula (IV):



(IV),

wherein:

Ta and Tb are each independently coupled to the -C(O)OCR^{2}R^3- fragment of formula (I) via W^1, W^2, A, B, or L^2,

M is N, C(X^{a}R^a) or C(X^{b}L^{1}L^2-),

Q is -X^{a}R^a or -X^{b}L^{1}L^2-,

each instance of W^1 and W^2 is independently selected from alkyl, amino, amido, carboxylic acid, ester, and hydrazido, e.g. -C(O)NH-(alkyl)-N(alkyl)-;

n and m are each independently 0, 1, 2, or 3,

Z is selected from alkylene, alkenylene, and alkynylene,

A and B are each independently aryl or heteroaryl,

X^a and X^b are each independently selected from CH$_2$, NH, O, and S,

R^a is selected from H, alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocyclyl, aryl, heteroaryl, heterocyclyl, aralkyl, heteroaralkyl, heterocyclylalkyl, cycloalkylalkyl, -(alkylene)carboxylic acid , -(alkylene)guanidino, -(alkylene)NHC(O)CH$_2$guanidino, -(alkylene)O(alkylene)guanidino, and -O(alkylene)guanidino,

L^1 is selected from alkylene, heteroalkylene, alkenylene, alkynylene, cycloalkylene, heterocyclylene, arylene, and heteroarylene,

L^2 is a bond, or a linker moiety coupled to L^1 and comprising a nitrogen atom coupled to the -C(O)O(CR^{2}R^3)- fragment of the compound represented by structural formula (IIIa) or a second linker.

20. The compound of any one of claims 4-6, 8-14, 16-17, and 19, wherein A and B are each independently substituted or unsubstituted pyrazole or substituted or unsubstituted oxazole;

optionally wherein when A and B are each independently substituted pyrazole or substituted oxazole, the pyrazole and oxazole are each substituted with two C_{1-3} alkyls.

21. The compound of any one of claims 1-20, wherein each instance of the first linker is independently selected from *(alkylene)O(alkylene)**, *(heteroalkylene)**, *(alkylene)**, *(heteroaralkylene)**, *(heteroalkylene)(heterocyclylene)**, *$CH_2CH_2C(O)NHCH$**, *$(CH_2CH_2O)_t$-**, and *(alkylene)(heteroarylene)$(CH_2CH_2O)_t$**,

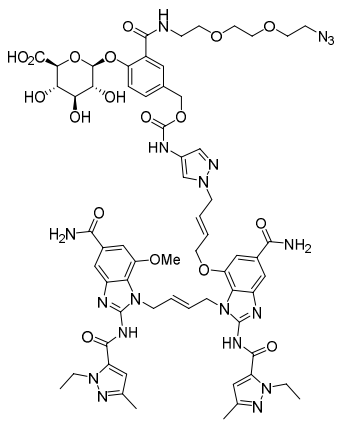
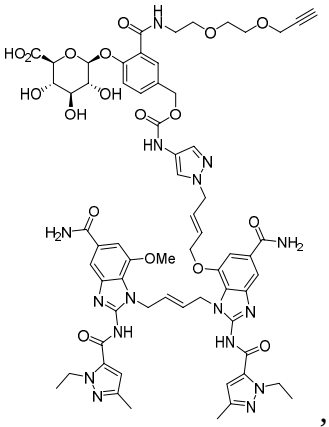
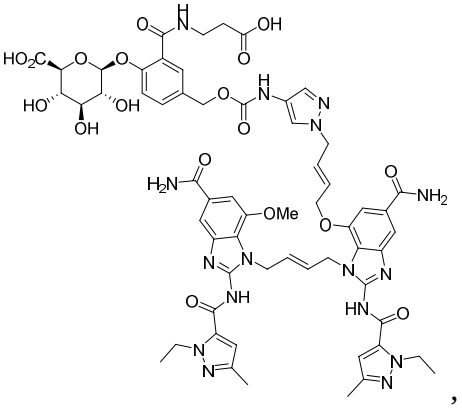
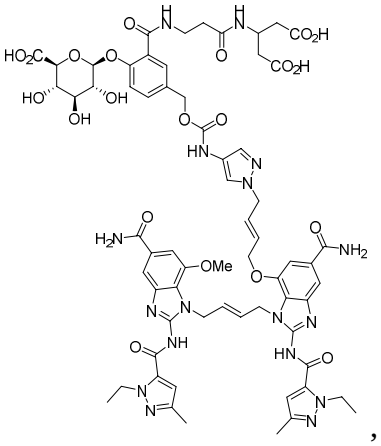
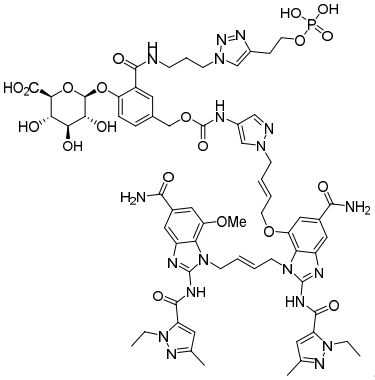
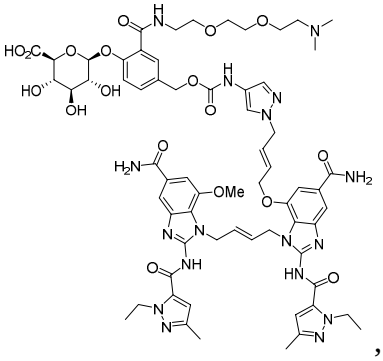
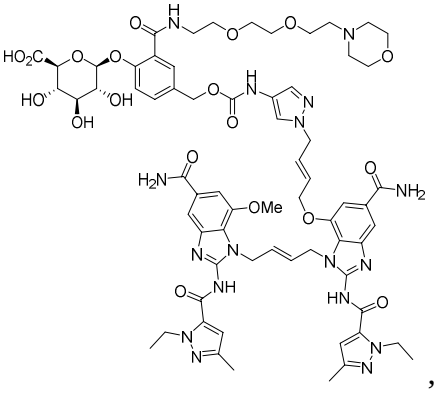
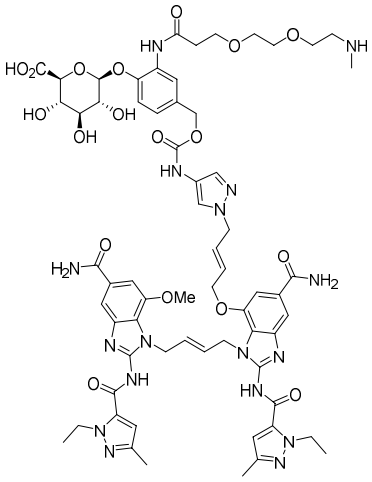
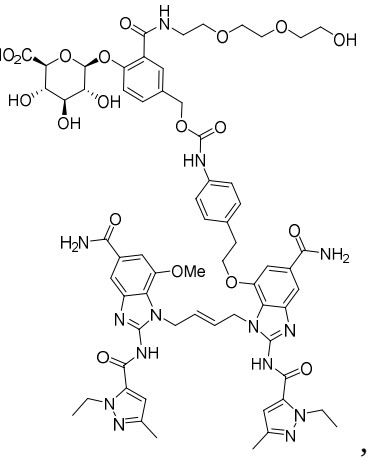
wherein * indicates the point of connection to the -C(O)NH- fragment of the compound represented by structural formula (I), ** indicates the point of connection to U, and t represents an integer from 1-15.

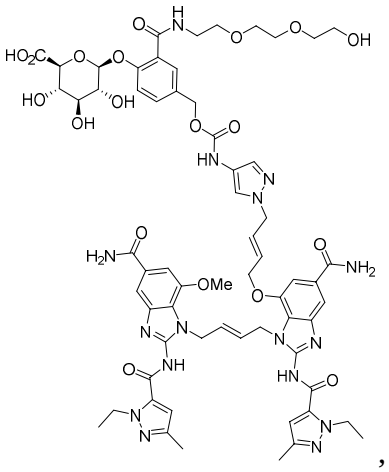
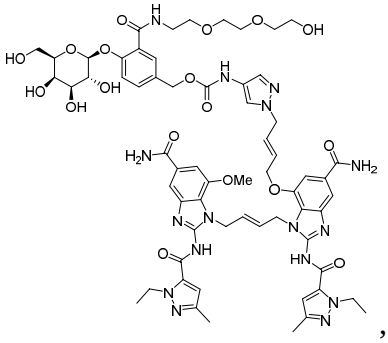
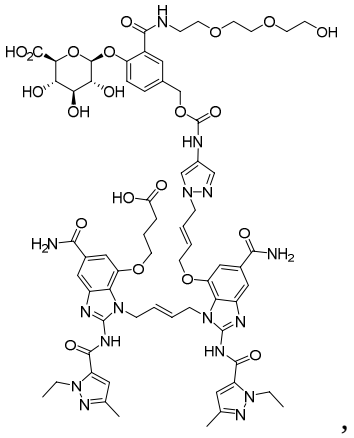
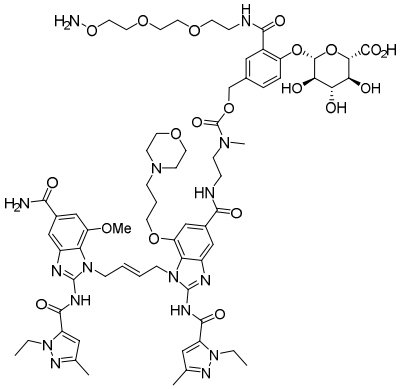
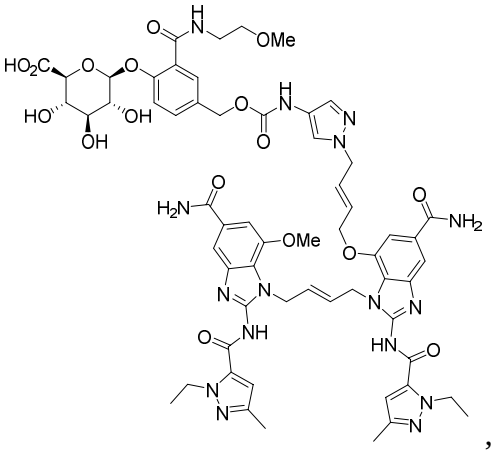
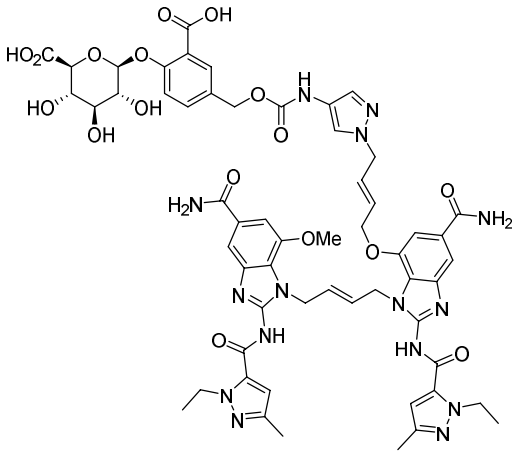
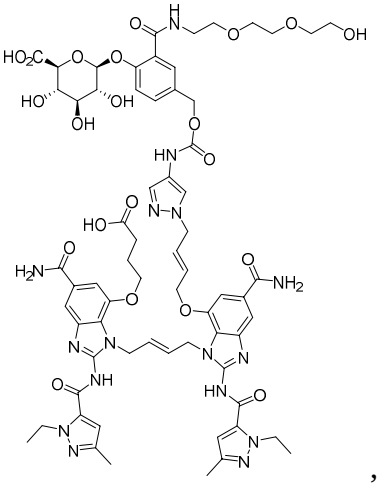
22. The compound of claim 21, wherein each instance of the first linker is independently selected from *$(CH_2CH_2O)_tCH_2$**, *$(CH_2CH_2O)_2CH_2CH_2N(CH_3)CH_2$**, *$(CH_2CH_2O)_2CH_2CH_2N(CH_3)$**, *$(CH_2CH_2O)_t$**, *$(CH_2CH_2O)_tCH_2CH_2NH$**, *$CH_2CH_2$**, *$(CH_2CH_2O)_tCH_2$**, *$(CH_2CH_2O)_tCH_2CH_2$heterocyclylene**, *$(CH_2CH_2O)_tCH_2$**, *$(CH_2CH_2O)_tCH_2CH_2$**, and *$(CH_2CH_2O)_tNH$**.

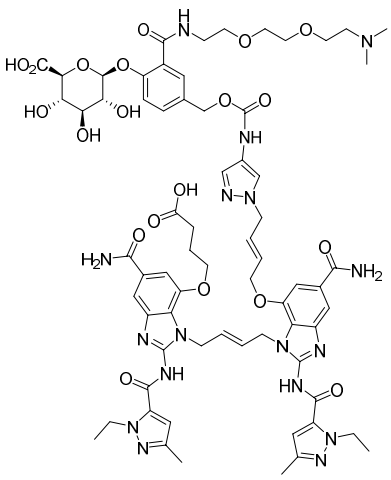
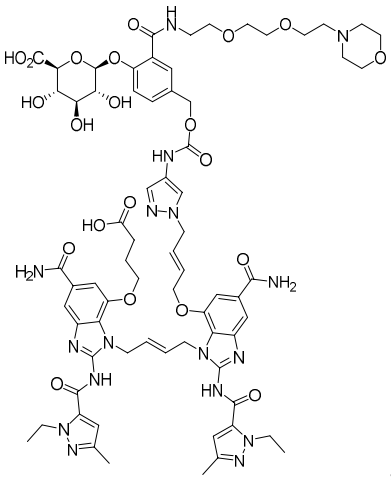
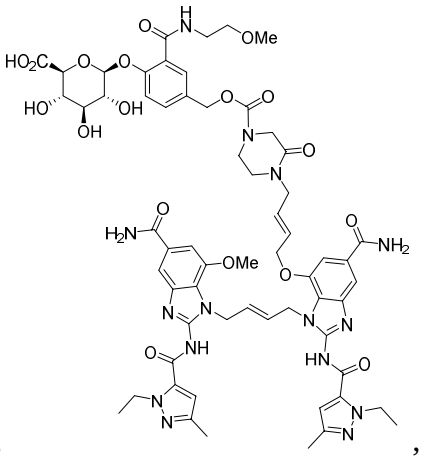
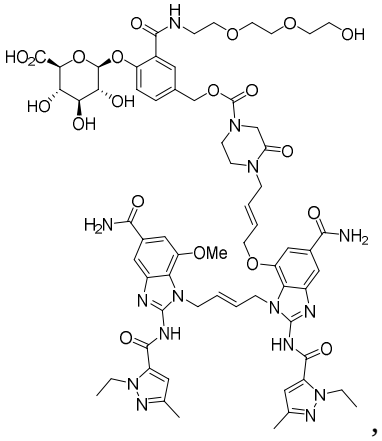
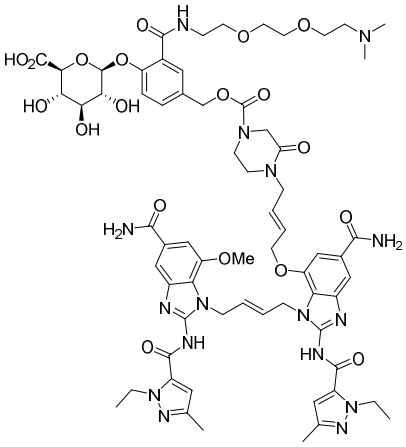
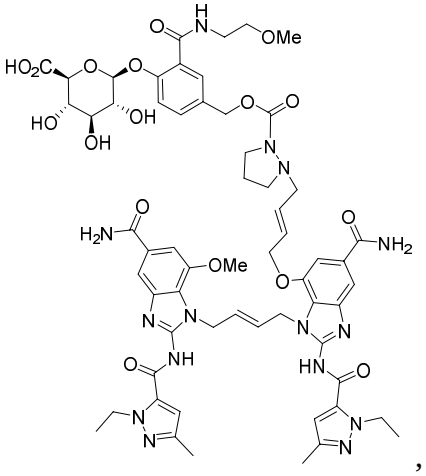
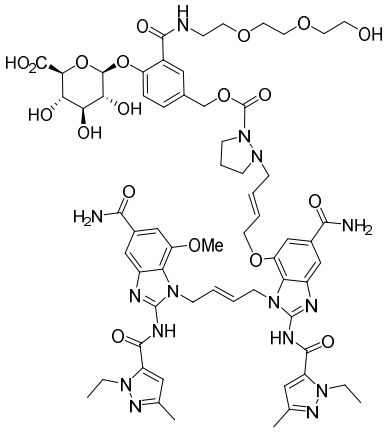
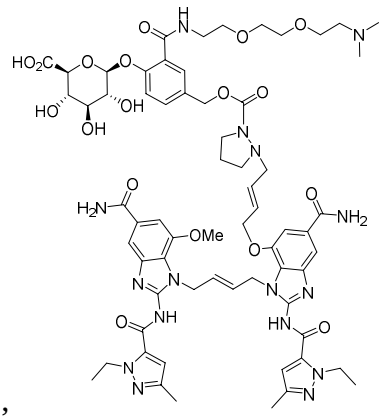
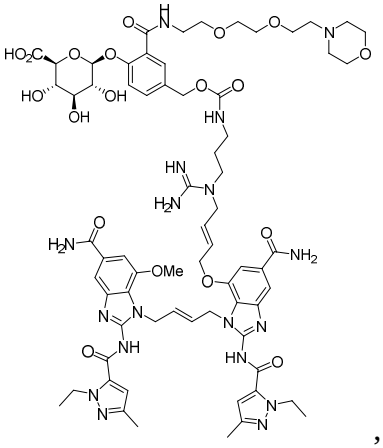
23. The compound of claim 21 or claim 22, wherein t represents an integer from 1-6.

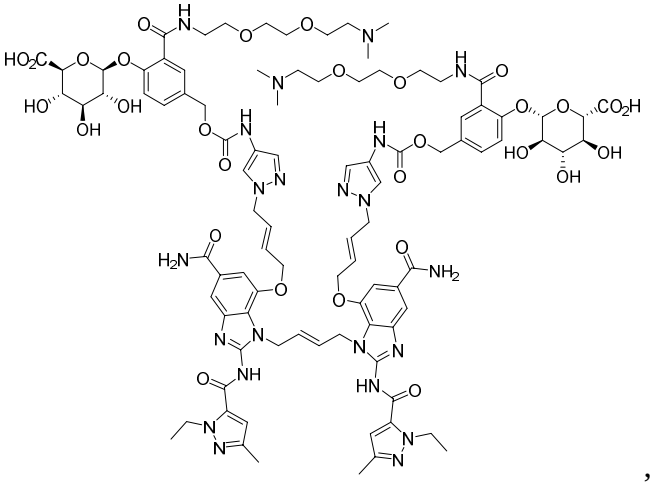
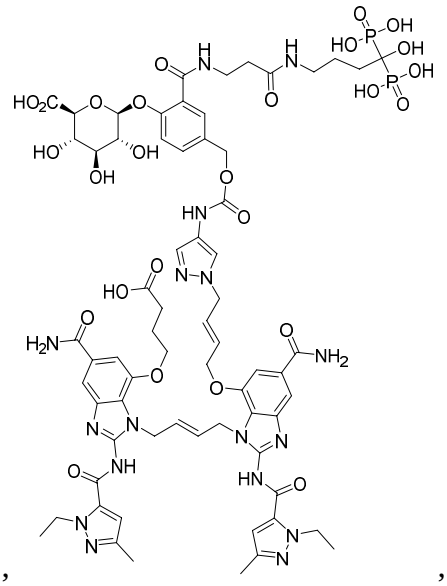
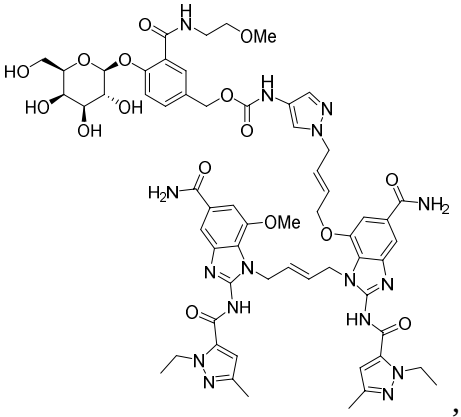
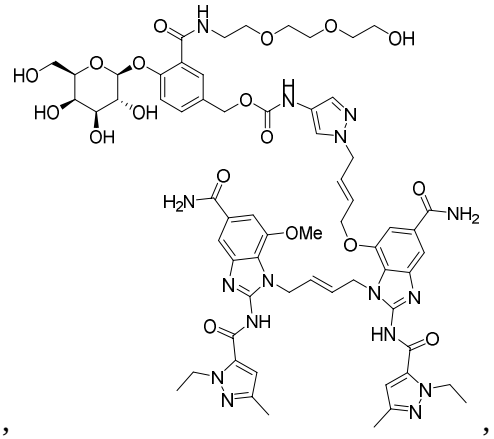
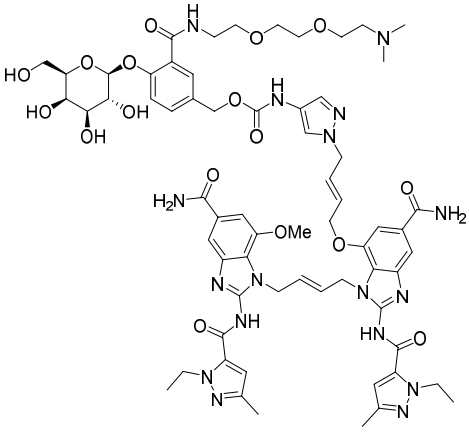
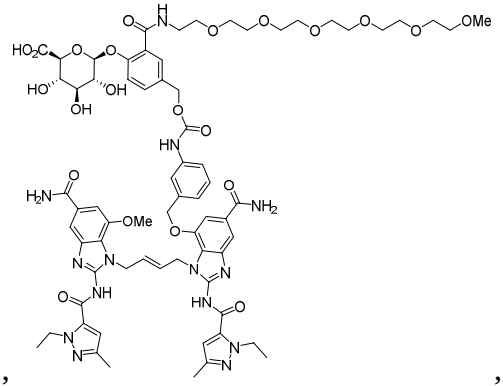
24. The compound of any one of claims 1-23, wherein each instance of U is independently selected from H, alkyl, amino, azido, acetylenyl, alkylamino, heterocyclyl, alkoxy, -COOH, -$P(O)(OH)_2$, -DBCO, -OH and a saccharide; optionally wherein the heterocyclyl comprises at least one nitrogen which is the point of connection to L^u.

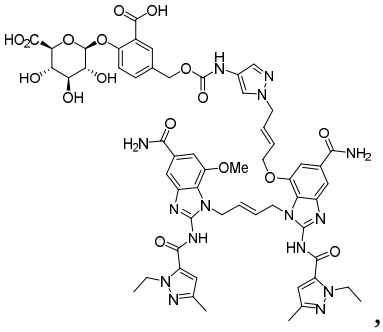
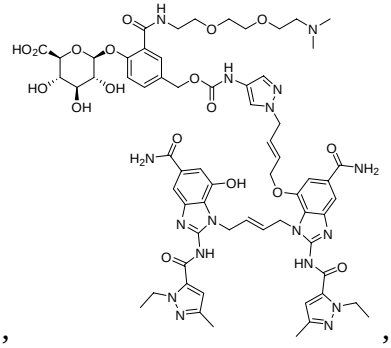
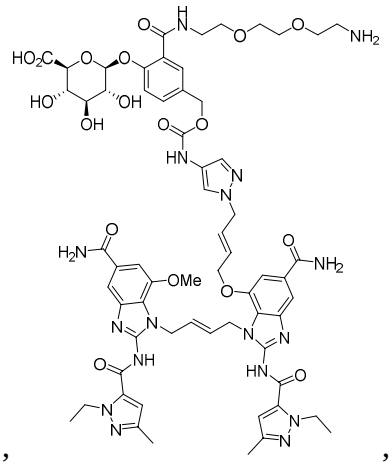
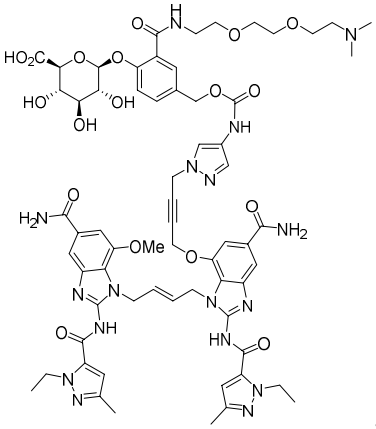
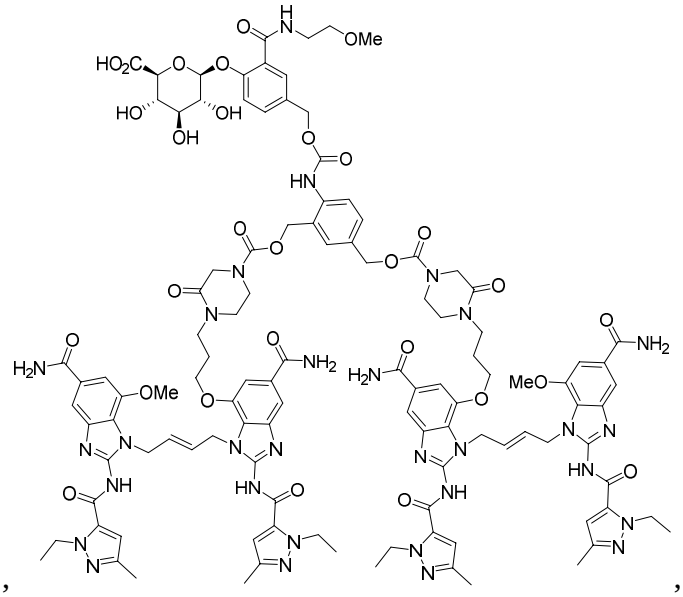
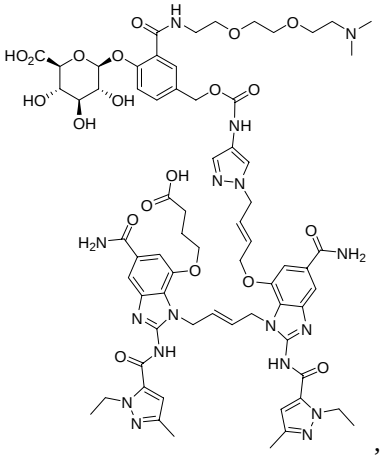
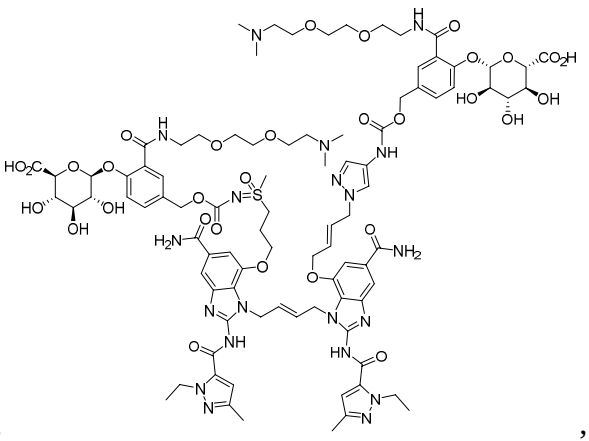
25. The compound of claim 1, wherein the compound is

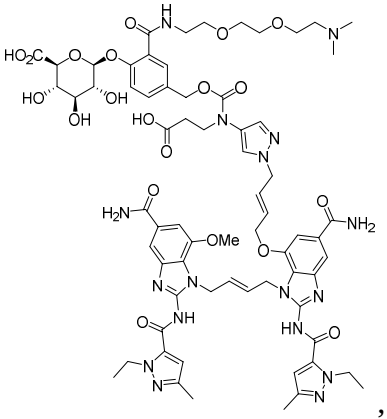
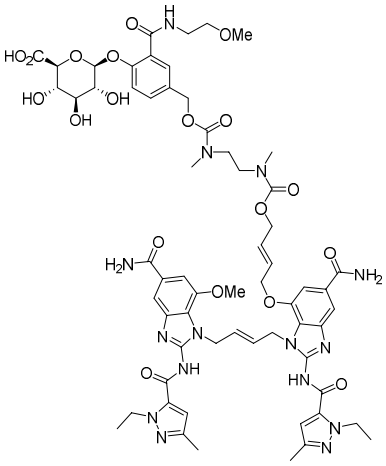
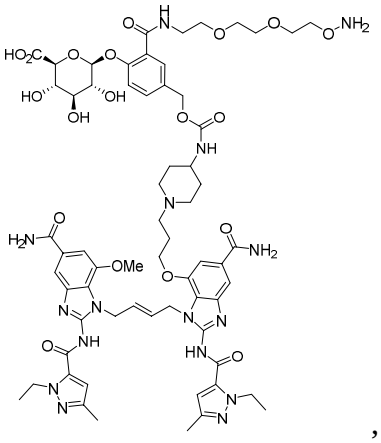
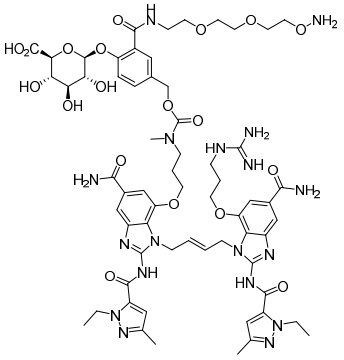
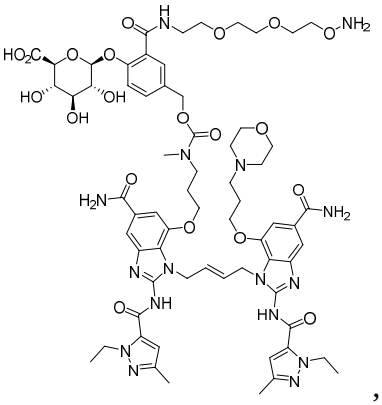
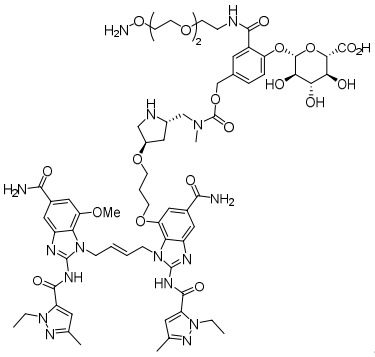
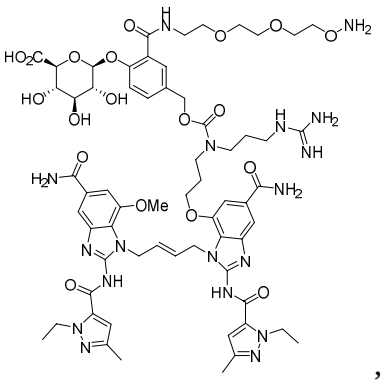
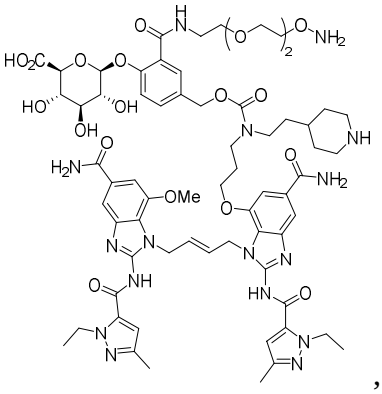
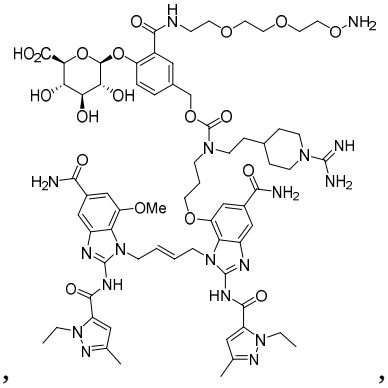

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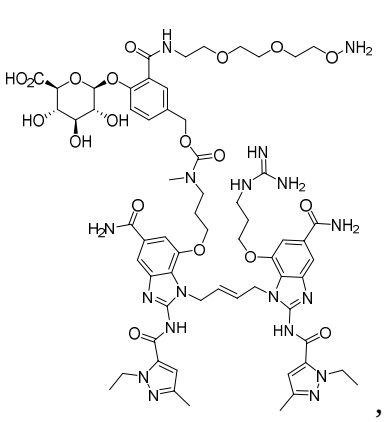
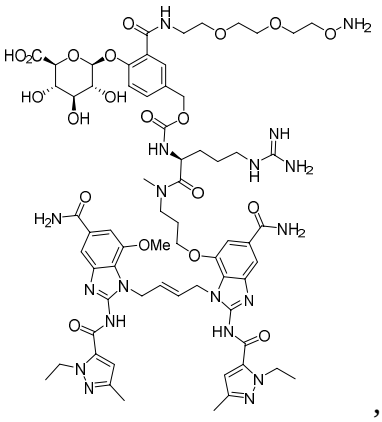
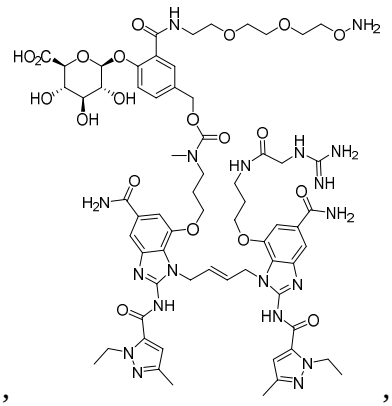
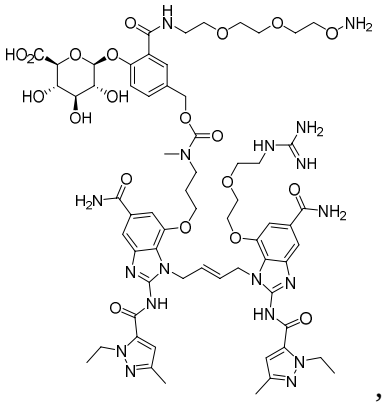
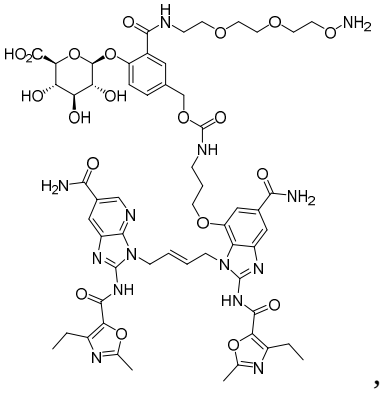
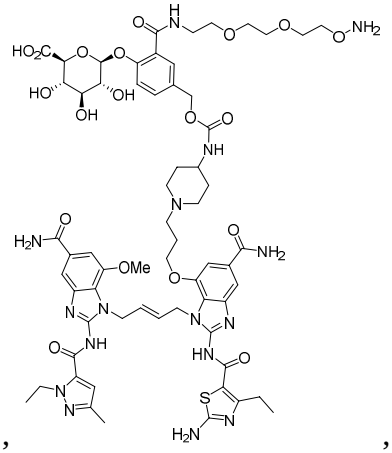
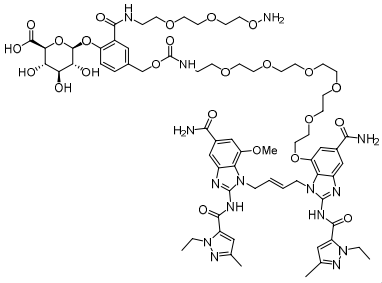
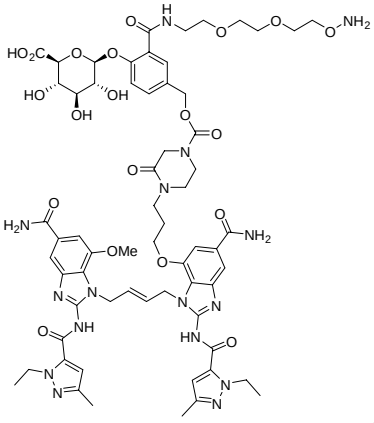
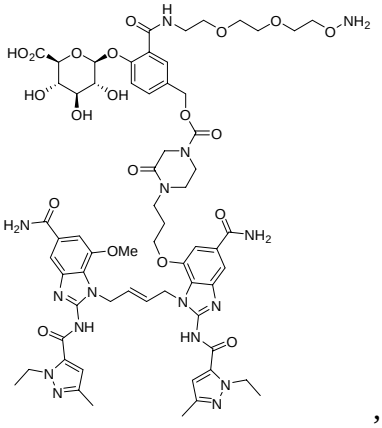

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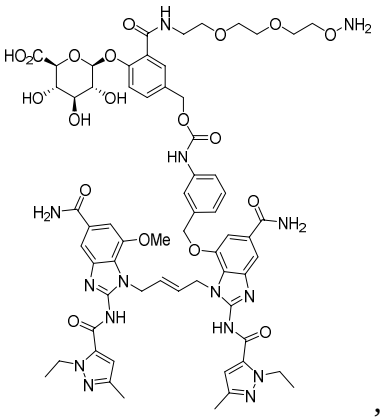
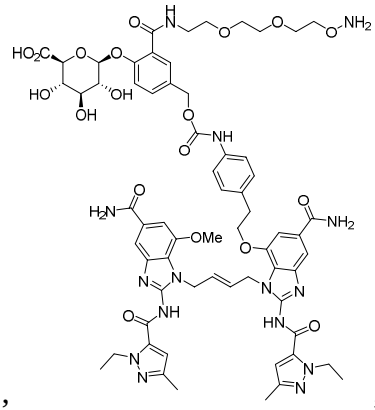
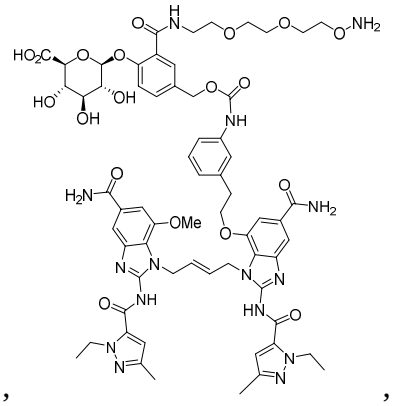
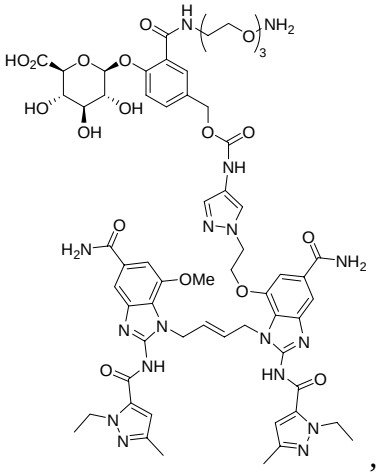
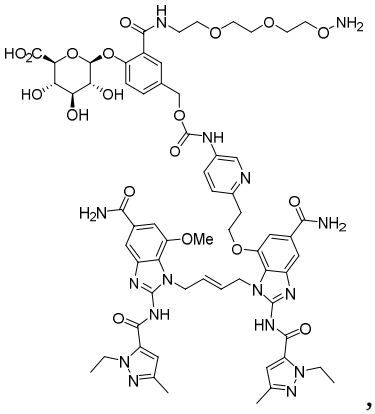
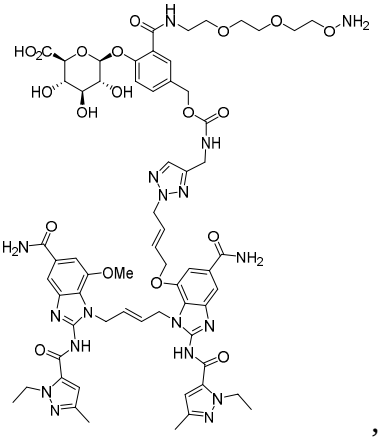
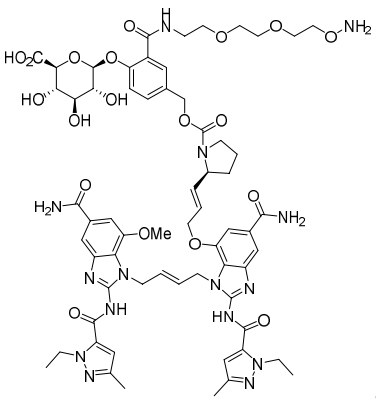
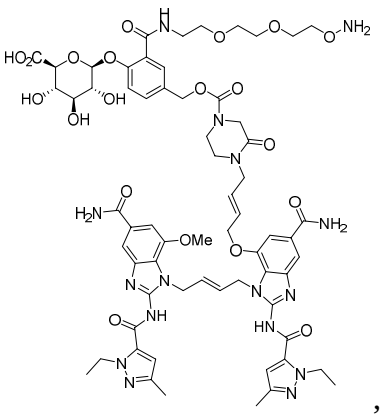
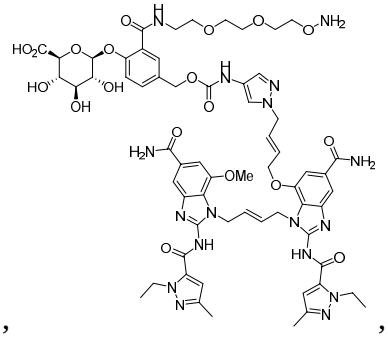

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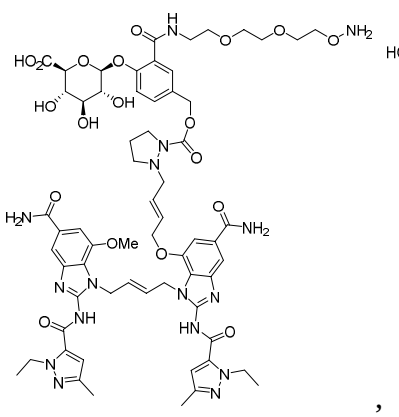
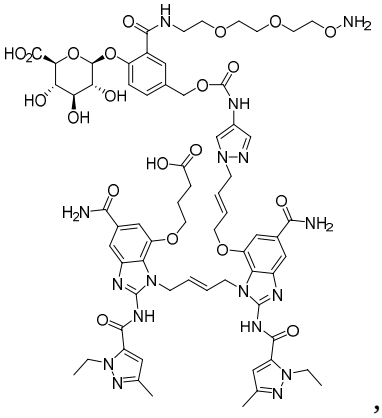
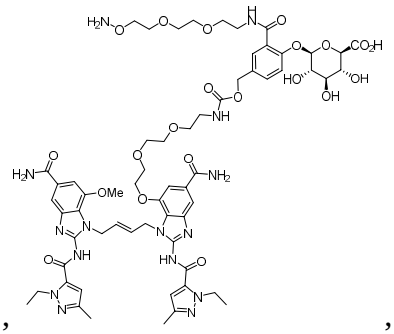
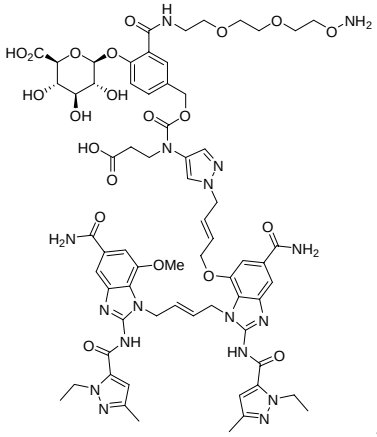
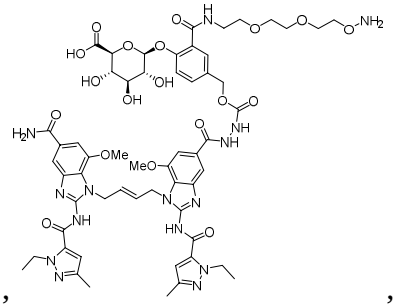
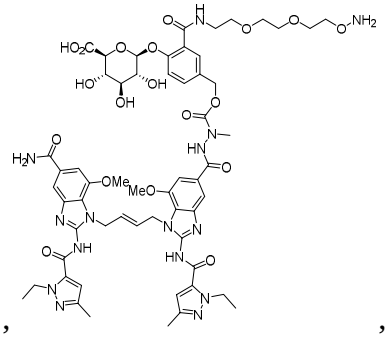
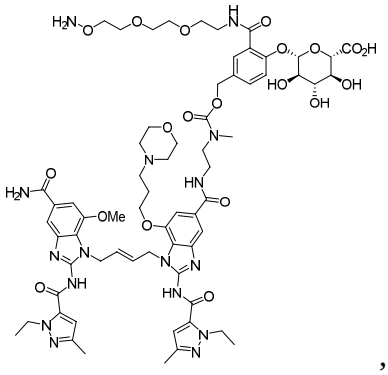
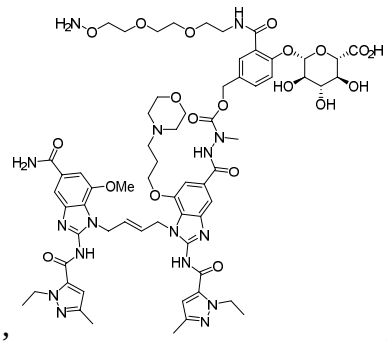
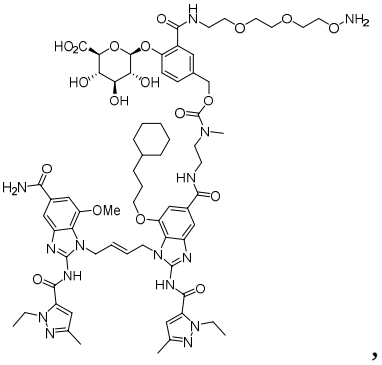

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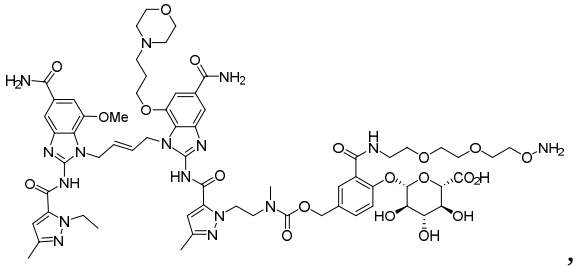
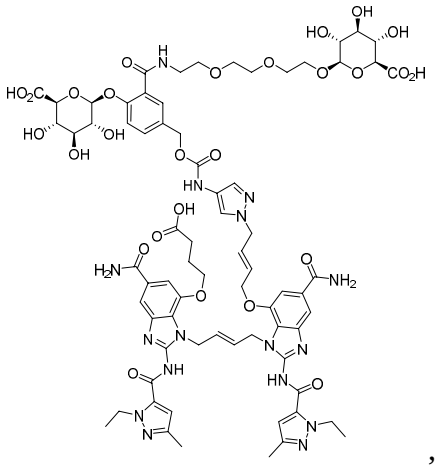
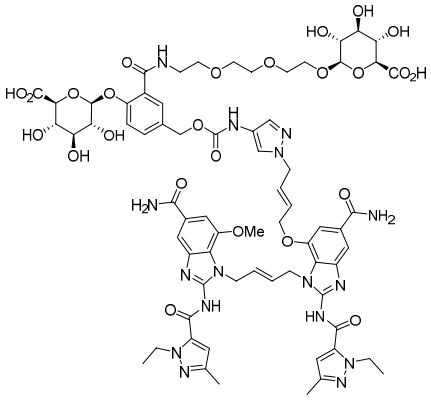
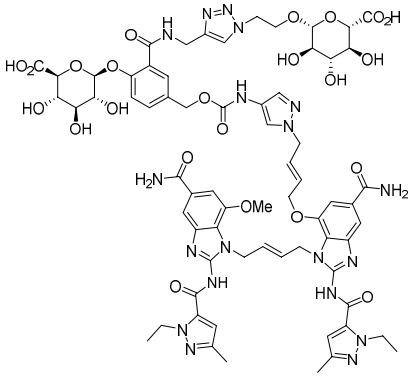

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26. A pharmaceutical composition comprising a compound of any one of claims 1-25 and a pharmaceutically acceptable excipient.

27. Use of a compound of any one of claims 1-25 or the pharmaceutical composition of claim 26 in the manufacture of a medicament for preventing or treating a disease mediated by stimulator of interferon genes (STING) in a subject in need thereof.

28. The use of claim 27, wherein the disease mediated by STING is cancer, optionally wherein the cancer is selected from lung cancer, small cell lung cancer, gastrointestinal cancer, colorectal cancer, intestinal cancer, breast cancer, ovarian cancer, prostate cancer, testicular cancer, liver cancer, kidney cancer, bladder cancer, pancreatic cancer, brain cancer, sarcoma, osteosarcoma, Kaposi sarcoma, and melanoma.

29. Use of a compound of any one of claims 1-25 or the pharmaceutical composition of

claim 26 in the manufacture of a medicament for inducing an immune response in a subject in need thereof.

30. The use of claim 29, wherein the inducing of the immune response is effective to prevent or treat a disease mediated by STING in the subject, optionally wherein the disease mediated by STING is cancer, preferably wherein the cancer is selected from lung cancer, small cell lung cancer, gastrointestinal cancer, colorectal cancer, intestinal cancer, breast cancer, ovarian cancer, prostate cancer, testicular cancer, liver cancer, kidney cancer, bladder cancer, pancreatic cancer, brain cancer, sarcoma, osteosarcoma, Kaposi sarcoma, and melanoma.

31. A method of modulating the activity of a STING adaptor protein comprising contacting the STING adaptor protein with the compound of any one of claims 1-25, optionally wherein the compound increases the activity of the STING adaptor protein.

32. The use of claim 28 or claim 29, wherein the medicament is for conjoint administration with one or more additional therapeutic agents.