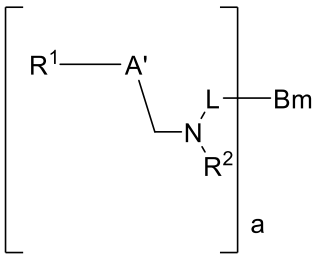
WHAT IS CLAIMED IS:

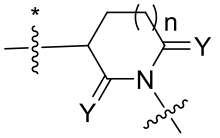
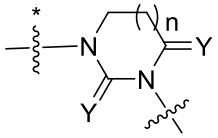
1. A conjugate of formula (XXXII):



(XXXII),

or a pharmaceutically acceptable salt thereof, wherein:

a is from 1 to 10;

A' is  or , wherein

n is 0 or 1;

each Y is independently S or O;

 indicates the point of attachment to R^1; and

 indicates the point of attachment to the methylene group;

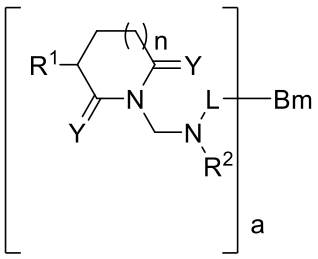
R^1, together with A', is a compound that induces a protein-protein interaction;

R^2 is selected from hydrogen, a group that provides stability to R^1-A', a group that provides solubility to R^1-A', and a group that provides stability and solubility to R^1-A';

L is a cleavable linker; and

Bm is a binding moiety that is capable of specifically binding to a protein.

2. A conjugate of formula (XX):



(XX),

or a pharmaceutically acceptable salt thereof, wherein:

a is from 1 to 10;

n is 0 or 1;

R^1 is a compound that induces a protein-protein interaction;

R^2 is selected from hydrogen, $-(CH_2CH_2O)_v-CH_3$, C_2-C_6alkenyl, C_1-C_6alkyl; C_2-C_6alkynyl, benzyl, C_3-C_6cycloalkyl, and C_3-C_6cycloalkyl(C_1-C_3alkyl), wherein v is from 1 to 24;

each Y is independently S or O;

L is a cleavable linker; and

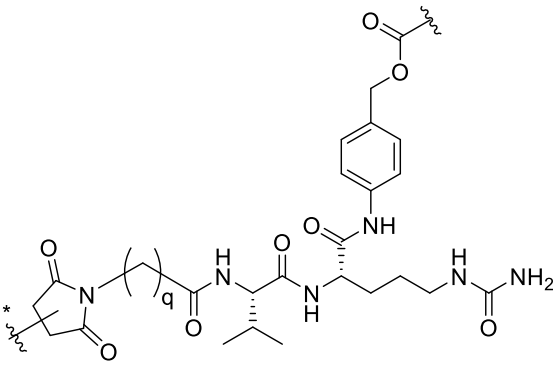
Bm is a binding moiety that is capable of specifically binding to a protein.

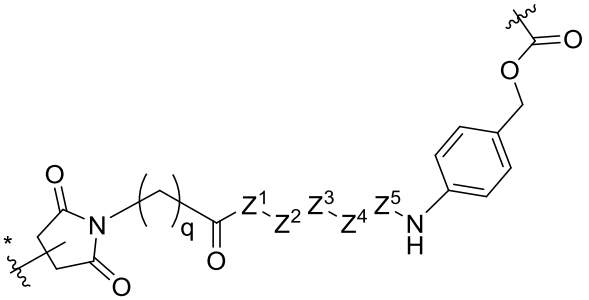
3. The conjugate of claim 1 or 2, or a pharmaceutically acceptable salt thereof, wherein the binding moiety is an antibody, antibody fragment, or an antigen-binding fragment.

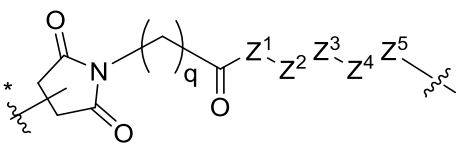
4. The conjugate of any one of claims 1 to 3, or a pharmaceutically acceptable salt thereof, wherein a is from 2 to 8.

5. The conjugate of any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, wherein the linker is cleavable by a protease.

6. The conjugate of claim 5, or a pharmaceutically acceptable salt thereof, wherein L is selected from the group consisting of


;


; and


;

wherein:

q is from 2 to 10;

Z^1, Z^2, Z^3, Z^4, and Z^5 are each independently absent or a naturally-occurring amino acid residue in the L- or D-configuration, provided that at least two of Z^1, Z^2, Z^3, Z^4, and Z^5 are amino acid residues;

 is the point of attachment to the parent molecular moiety; and

 is the point of attachment to the binding moiety.

7. The conjugate of claim 6, or a pharmaceutically acceptable salt thereof, wherein Z^1, Z^2, Z^3, Z^4, and Z^5 are independently absent or selected from the group consisting of L-valine, D-valine, L-citrulline, D-citrulline, L-alanine, D-alanine, L-glutamine, D-glutamine, L-glutamic acid, D-glutamic acid, L-aspartic acid, D-aspartic acid, L-asparagine, D-asparagine, L-phenylalanine, D-phenylalanine, L-lysine, D-lysine, and glycine; provided that at least two of Z^1, Z^2, Z^3, Z^4, and Z^5 are amino acid residues.

8. The conjugate of claim 7, or a pharmaceutically acceptable salt thereof, wherein:

Z^1 is absent or glycine;

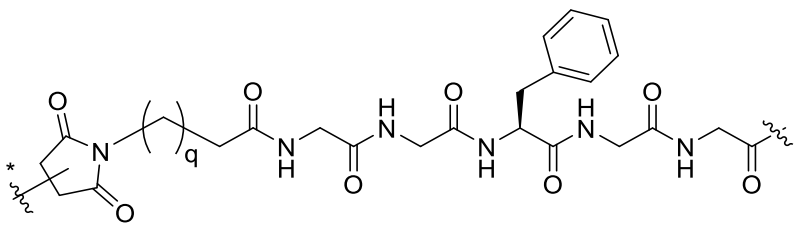
Z^2 is absent or selected from the group consisting of L-glutamine, D-glutamine, L-glutamic acid, D-glutamic acid, L-aspartic acid, D-aspartic acid, L-alanine, D-alanine, and glycine;

Z^3 is selected from the group consisting of L-valine, D-valine, L-alanine, D-alanine, L-phenylalanine, D-phenylalanine, and glycine;

Z^4 is selected from the group consisting of L-citrulline, D-citrulline, L-asparagine, D-asparagine, L-lysine, D-lysine, L-phenylalanine, D-phenylalanine, and glycine; and

Z^5 is absent or glycine.

9. The conjugate of any one of claims 1 to 8, or a pharmaceutically acceptable salt thereof, wherein L is

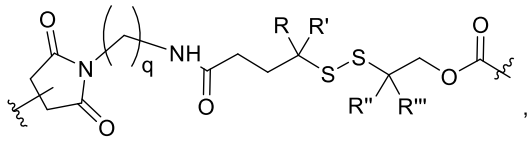


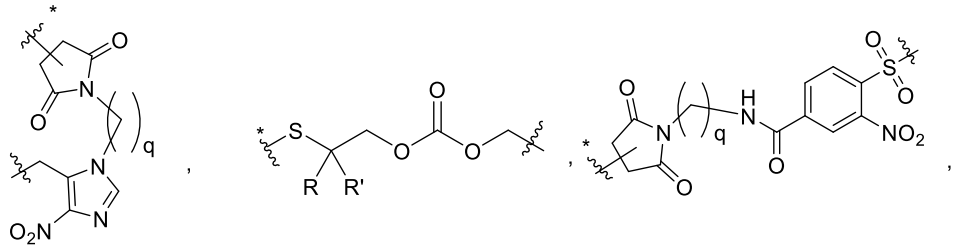
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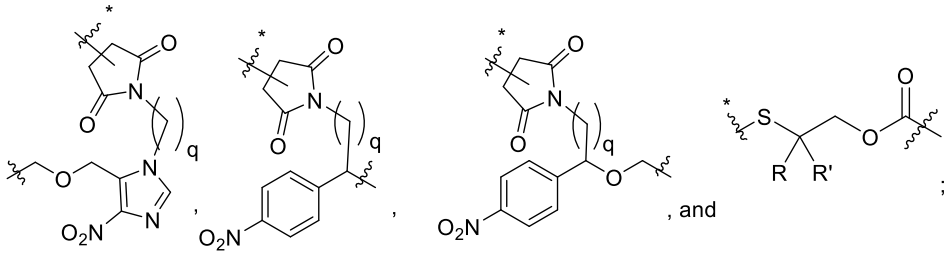
10. The conjugate of claim 9, or a pharmaceutically acceptable salt thereof, wherein q is 4.

11. The conjugate of any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, wherein L is a bioreducible linker.

12. The conjugate of claim 11, or a pharmaceutically acceptable salt thereof, wherein L is selected from the group consisting of







wherein:

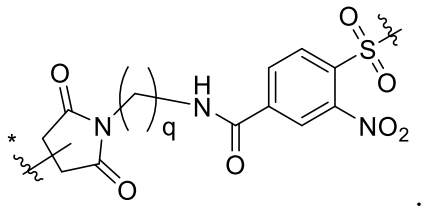
q is from 2 to 10;

R, R', R'', and R''' are each independently selected from hydrogen, C_1-C_6alkoxyC_1-C_6alkyl, (C_1-C_6)$_2$NC_1-C_6alkyl, and C_1-C_6alkyl, or, two geminal R groups, together with the carbon atom to which they are attached, can form a cyclobutyl or cyclopropyl ring;

 is the point of attachment to the parent molecular moiety; and

 is the point of attachment to the binding moiety.

13. The conjugate of claim 12, or a pharmaceutically acceptable salt thereof, wherein L is

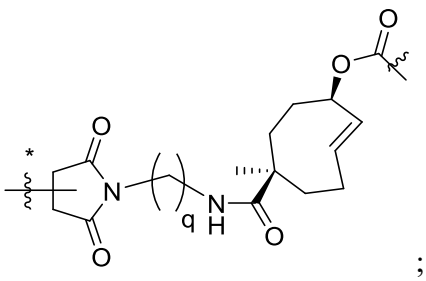


.

14. The conjugate of claim 13, or a pharmaceutically acceptable salt thereof, wherein q is 2.

15. The conjugate of any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, wherein L is a click-to-release linker.

16. The conjugate of claim 15, or a pharmaceutically acceptable salt thereof, wherein L is



;

wherein:

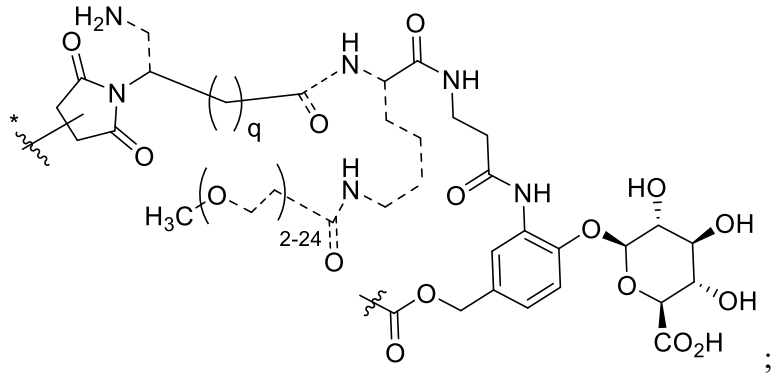
q is from 2 to 10;

 is the point of attachment to the parent molecular moiety; and

 is the point of attachment to the binding moiety.

17. The conjugate of any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, wherein L is a beta-glucuronidase cleavable linker.

18. The conjugate of claim 15, or a pharmaceutically acceptable salt thereof, wherein L is



;

wherein:

q is from 2 to 10;

---- is absent or a bond;

~ is the point of attachment to the parent molecular moiety; and

~* is the point of attachment to the binding moiety.

19. The conjugate of any one of claims 1 to 18, or a pharmaceutically acceptable salt thereof, wherein L is attached to a cysteine, lysine, tyrosine, or glutamine in the Bm.

20. The conjugate of claim 19, or a pharmaceutically acceptable salt thereof, wherein the cysteine or lysine is an engineered cysteine or lysine.

21. The conjugate of claim 19, or a pharmaceutically acceptable salt thereof, wherein the cysteine or lysine is endogenous to the Bm.

22. The conjugate of any one of claims 1 to 21, or a pharmaceutically acceptable salt thereof, wherein Bm is an antibody or antigen binding portion thereof.

23. The conjugate of claim 22, wherein L is attached to an engineered cysteine at heavy chain position S239 and/or K334 of the antibody or antigen binding portion thereof according to EU numbering.

24. The conjugate of claim 22, wherein L is attached to the glutamine at heavy chain position 295 of the antibody or antigen binding portion thereof according to EU numbering.

25. The conjugate of any one of claims 1 to 24, or a pharmaceutically acceptable salt thereof, wherein the protein that the Bm binds to is a surface antigen, optionally wherein binding of the Bm to the surface antigen results in internalization of the conjugate or pharmaceutically acceptable salt thereof into a cell.

26. The conjugate of claim 25, or a pharmaceutically acceptable salt thereof, wherein the surface antigen comprises 5T4, ACE, ADRB3, AKAP-4, ALK, AOC3, APP, Axin1, AXL, B7H3, B7-H4, BCL2, BCMA, bcr-abl, BORIS, BST2, C242, C4.4a, CA 125, CA6, CA9, CAIX, CCL11, CCR5, CD123, CD133, CD138, CD142, CD15, CD15-3, CD171, CD179a, CD18, CD19, CD19-9, CD2, CD20, CD22, CD23, CD24, CD25, CD27L, CD28, CD3, CD30, CD31, CD300LF, CD33, CD352, CD37, CD38, CD4, CD40, CD41, CD44, CD44v6, CD5, CD51, CD52, CD54, CD56, CD62E, CD62P, CD62L, CD70, CD71, CD72, CD74, CD79a, CD79b, CD80, CD90, CD97, CD125, CD138, CD141, CD147, CD152, CD154, CD326, CEA, CEACAM5, CFTR, clumping factor, cKit, Claudin 3, Claudin 18.2, CLDN6, CLEC12A, CLL-1, cll3, c-MET, Crypto 1 growth factor, CS1, CTLA-4, CXCR2, CXORF61, Cyclin Bl, CYP1B1, Cadherin-3, Cadherin-6, DLL3, E7, EDNRB, EFNA4, EGFR, EGFRvIII, ELF2M, EMR2, ENPP3, EPCAM, EphA2, Ephrin A4, Ephrin B2, EPHB4, ERBB2 (Her2/neu), ErbB3, ERG (TMPRSS2 ETS fusion gene), ETBR, ETV6-AML, FAP, FCAR, FCRL5, FGFR1, FGFR2, FGFR3, FGFR4, FLT3, Folate receptor alpha, Folate receptor beta, FOLR1, Fos-related antigen 1, Fucosyl GM1, GCC, GD2, GD3, GloboH, GM3, GPC1, GPC2, GPC3, gplOO, GPNMB, GPR20, GPRC5D, GUCY2C, HAVCR1, HER2, HER3, HGF, HMI.24, HMWMAA, HPV E6, hTERT, human telomerase reverse transcriptase, ICAM, ICOS-L, IFN- α, IFN-γ, IGF-I receptor, IGLL1, IL-2 receptor, IL-4 receptor, IL-13Ra2, IL-l lRa, IL-1 receptor, IL-12 receptor, IL-23 receptor, IL-13 receptor, IL-22 receptor, IL-4 receptor, IL-5 receptor, IL-6 receptor, interferon receptor, integrins (including α_4, $\alpha_v\beta_3$, $\alpha_v\beta_5$, $\alpha_v\beta_6$, $\alpha_1\beta_4$, $\alpha_4\beta_1$, $\alpha_4\beta_7$, $\alpha_5\beta_1$, $\alpha_6\beta_4$, $\alpha_{IIb}\beta_3$ integrins), Integrin alphaV, intestinal carboxyl esterase, KIT, LAGE-la, LAIR1, LAMP-1, LCK, Legumain, LewisY, LFA-1(CD11a), L-selectin(CD62L), LILRA2, LIV-1, LMP2, LRRC15, LY6E, LY6K, LY75, MAD-CT-1, MAD-CT-2, MAGE Al, MelanA/MARTl, Mesothelin, ML-IAP, MSLN, mucin, MUC1, MUC16, mut hsp70-2, MYCN, myostatin, NA17, NaPi2b, NCA-90, NCAM, Nectin-4, NGF, NOTCH1, NOTCH2, NOTCH3, NOTCH4, NY-BR-1, NY-ESO-1, o-acetyl-GD2, OR51E2, OY-TES1, p53, p53 mutant, PANX3, PAP, PAX3, PAX5, p-CAD, PCTA- 1/Galectin 8, PD-L1, PD-L2, PDGFR, PDGFR-beta, phosphatidylserine, PIK3CA, PLAC1, Polysialic acid, Prostase, prostatic carcinoma cell, prostein,

Pseudomonas aeruginosa, rabies, survivin and telomerase, PD-1, PRSS21, PSCA, PSMA, PTK7, RAGE-1, RANKL, Ras mutant, respiratory syncytial virus, Rhesus factor, RhoC, RON, ROR1, ROR2, RU1, RU2, sarcoma translocation breakpoints, SART3, SLAMF7, SLC44A4, sLe, SLITRK6, sperm protein 17, sphingosine-1-phosphate, SSEA-4, SSX2, STEAP1, TAG72, TARP, TCRβ, TEM1/CD248, TEM7R, tenascin C, TF, TGF-1, TGF- β2, TNF-α, TGS5, Tie 2, TIM-1, Tn Ag, TRAC, TRAIL-R1, TRAIL-R2, TROP-2, TRP-2, TRPV1, TSHR, tumor antigen CTAA16.88, tyrosinase, UPK2, VEGF, VEGFR1, VEGFR2, vimentin, WTl, XAGE1, or combinations thereof, optionally wherein the Bm that binds to CD33 comprises the amino acid sequences of SEQ ID NOs:1 and 2, 3 and 4, 5 and 6, 22, and 23, 24 and 25, or 27 and 28, wherein the Bm that binds to PSMA comprises the amino acid sequences of SEQ ID NOs:7 and 8, 9 and 10, 11 and 12, or 29 and 30, wherein the Bm that binds to HER2 comprises the amino acid sequences of SEQ ID NOs:13 and 14, 15 and 16, or 17, and 18, wherein the Bm that binds to CD20 comprises the amino acid sequences of SEQ ID NOs:31 and 32, wherein the Bm that binds to CD79b comprises the amino acid sequences of SEQ ID NO:33 and 34, or wherein the Bm that binds to BCMA comprises the amino acid sequences of SEQ ID NOs:35 and 36.

27. The conjugate of claim 25, or a pharmaceutically acceptable salt thereof, wherein the surface antigen comprises HER2, CD20, CD38, CD33, BCMA, CD138, EGFR, FGFR4, GD2, PDGFR, or combinations thereof.

28. The conjugate of claim 22, or a pharmaceutically acceptable salt thereof, wherein the antibody is selected from the group consisting of rituximab, trastuzumab, gemtuzumab, pertuzumab, obinutuzumab, ofatumumab, daratumumab, STI-6129, lintuzumab, huMy9-6, belantamab, indatuximab, cetuximab, dinutuximab, anti-CD38 A2 antibody, huAT15/3 antibody, alemtuzumab, ibritumomab, tositumomab, bevacizumab, panitumumab, tremelimumab, ticilimumab, catumaxomab, oregovomab, veltuzumab, polatuzumab, J591, lorvotuzumab and sacituzumab.

29. The conjugate of claim 28, or a pharmaceutically acceptable salt thereof, wherein the antibody is rituximab, trastuzumab, pertuzumab, huMy9-6, lintuzumab, gemtuzumab, or CD33-D.

30. The conjugate of any one of claims 1 or 3 to 29, or a pharmaceutically acceptable salt thereof, wherein R^2 is a group that provides stability to the conjugate.

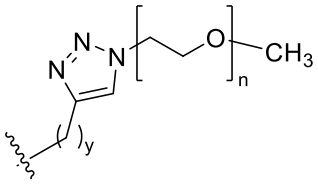
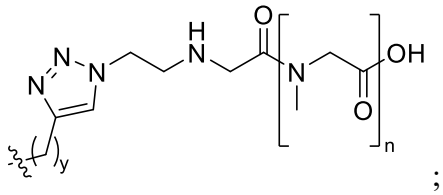
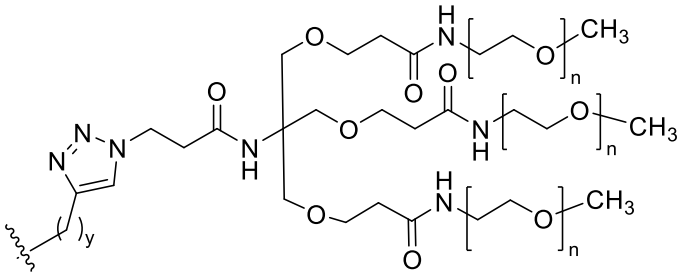
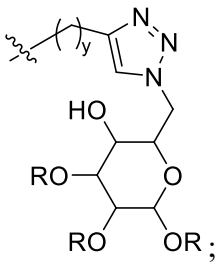
31. The conjugate of any one of claims 1 or 3 to 30, or a pharmaceutically acceptable salt thereof, wherein R^2 is selected from C_2-C_6alkenyl, C_1-C_6alkyl; C_2-C_6alkynyl, benzyl, C_3-C_6cycloalkyl, and C_3-C_6cycloalkyl(C_1-C_3alkyl).

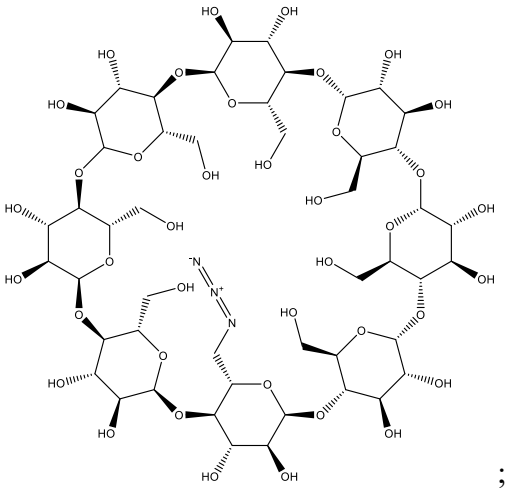
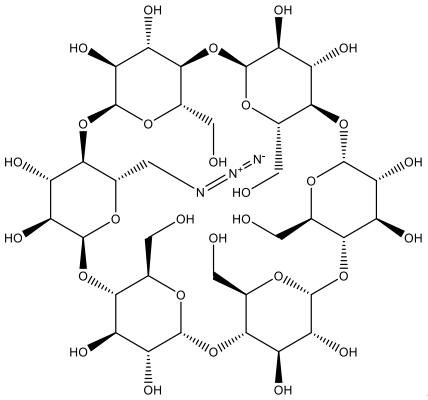
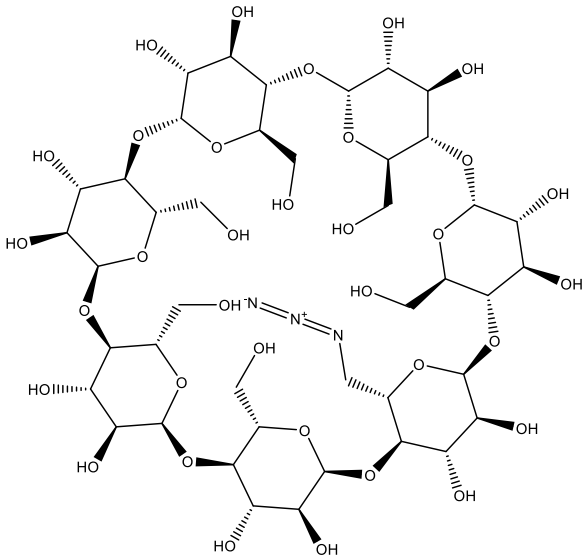
32. The conjugate of any one of claims 1 or 3 to 31, or a pharmaceutically acceptable salt thereof, wherein R^2 is C_1-C_6alkyl.

33. The conjugate of any one of claims 1 or 3 to 32, or a pharmaceutically acceptable salt thereof, wherein R^2 is methyl.

34. The conjugate of any one of claims 1 or 3 to 29, or a pharmaceutically acceptable salt thereof, wherein R^2 is a group that provides solubility to the conjugate.

35. The conjugate of any one of claims 1, 3 to 29, or 34, or a pharmaceutically acceptable salt thereof, wherein R^2 is selected from:


;

;

;

;


;

; and

.

wherein:

each n is independently 1, 2, 3, 4, or 5;

each y is independently 1 or 2; and

each R is independently hydrogen, $C_6H_{11}O_5$, $C_{12}H_{21}O_{10}$, $C_{18}H_{31}O_{15}$, or $C_{24}H_{41}O_{20}$.

36. The conjugate of any one of claims 1 to 35, or a pharmaceutically acceptable salt thereof, wherein each Y is O.

37. The conjugate of any one of claims 1 or 3 to 36, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a PPI modulator.

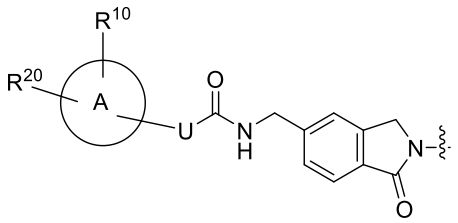
38. The conjugate of any one of claims 1 or 3 to 36, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a targeted protein degrader.

39. The conjugate of any one of claims 1, or 3 to 38, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a molecular glue.

40. The conjugate of any one of claims 1, or 3 to 39, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a substituted isoindoline.

41. The conjugate of any one of claims 1, or 3 to 40, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a 5'-substituted isoindoline.

42. The conjugate of any one of claims 1 to 41, or a pharmaceutically acceptable salt thereof, wherein R^1 is a compound of formula (XXX) :



(XXX)

wherein:

$\sim\!\!\sim$ denotes the point of attachment to the parent molecular moiety;

A is phenyl or a C_4-C_{10}cycloalkyl ring;

R^{10} is independently selected from hydrogen and halo;

U is selected from NH and CF_2; and

R^{20} is selected from $–CH_3$, $–C(O)R^3$, $-N(R^4)_2$, $–(CH_2)_nOH$, $–(CH_2)_nN(R^4)_2$, $–(CH_2)_nQ'(CH_2)_mOH$, $–(CH_2)_nQ'(CH_2)_mSH$, and $–(CH_2)_nQ'(CH_2)_mN(R^4)_2$; wherein

R^3 is hydrogen or C_1-C_6alkyl;

each R^4 is independently hydrogen or C_1-C_6alkyl;

Q' is O, S, or NR^4;

n is 1-6; and

m is 2-5.

43. The conjugate of claim 42, or a pharmaceutically acceptable salt thereof, wherein

A is phenyl;

U is NH;

R^{10} is halo; and

R^{20} is methyl.

44. The conjugate of claim 42, or a pharmaceutically acceptable salt thereof, wherein

A is phenyl;

U is NH;

R^{10} is halo; and

R^{20} is $-(CH_2)_2O(CH_2)_2NHCH_3$.

45. The conjugate of any one of claims 1, or 3 to 38, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a proteolysis targeting chimera (PROTAC).

46. The conjugate of any one of claims 1 to 38 or 45, or a pharmaceutically acceptable salt thereof, wherein R^1 has the formula:

$$POI– L^{100}\text{-}CBN;$$

wherein:

POI is a compound that binds to a protein of interest;

L^{100} is a PROTAC linker; and

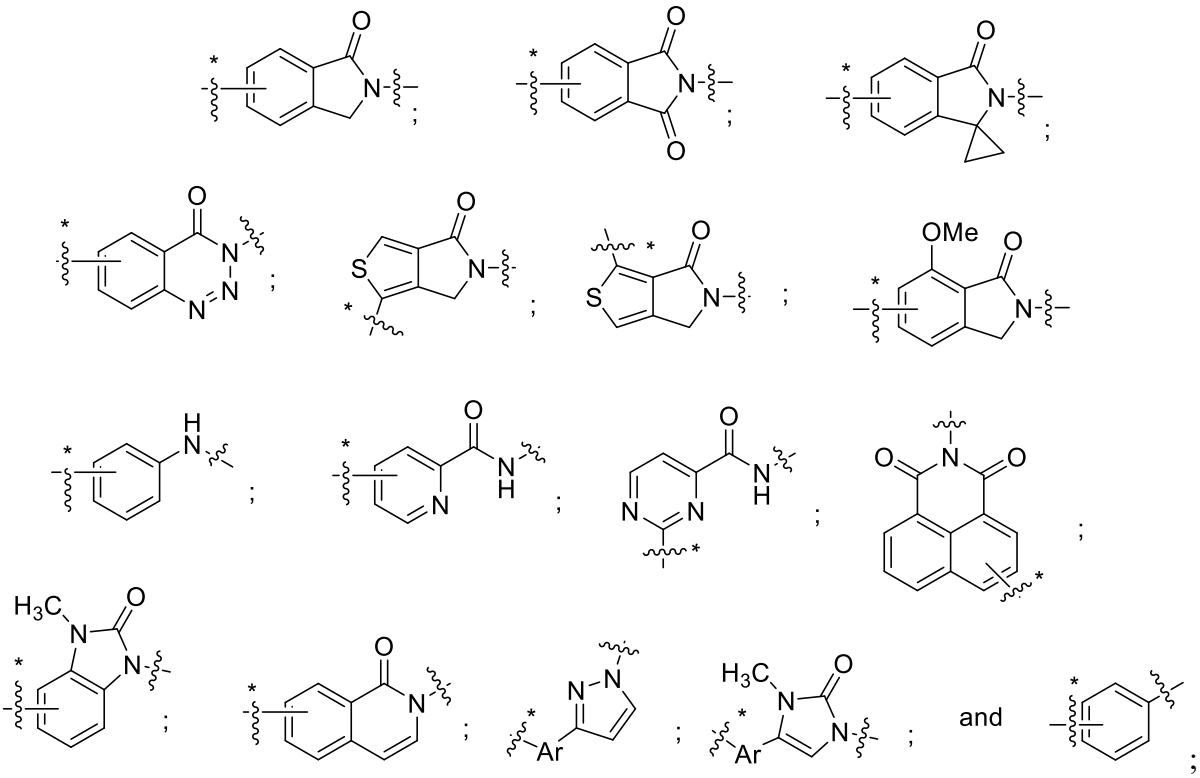
CBN is a cereblon binding moiety.

47. The conjugate of claim 46, or a pharmaceutically acceptable salt thereof, wherein the protein of interest is a nuclear hormone receptor, a translation termination factor, a transcription factor, a cyclin-dependent kinase, a tyrosine kinase, a serine/threonine kinase, or an E3 ligase.

48. The conjugate of claim 46 or 47, or a pharmaceutically acceptable salt thereof, wherein the protein of interest is selected from CD33, GSPT1, BRD4, AR, ER, IKZF1/3, CK1a, BCL-XL, IKZF2, IRAK4, BTK, STAT3, BTK and iMiD, BRD9, TRK, MDM2, CDK2/CDK9, CD97b, and EGFR.

49. The conjugate of any one of claims 46 to 48, or a pharmaceutically acceptable salt thereof, wherein L^{100} comprises one or more functional groups selected from glycol, alkyl, alkynyl, triazolyl, piperazinyl, piperidinyl, and combinations thereof.

50. The conjugate of any one of claims 46 to 49, or a pharmaceutically acceptable salt thereof, wherein CBN is selected from

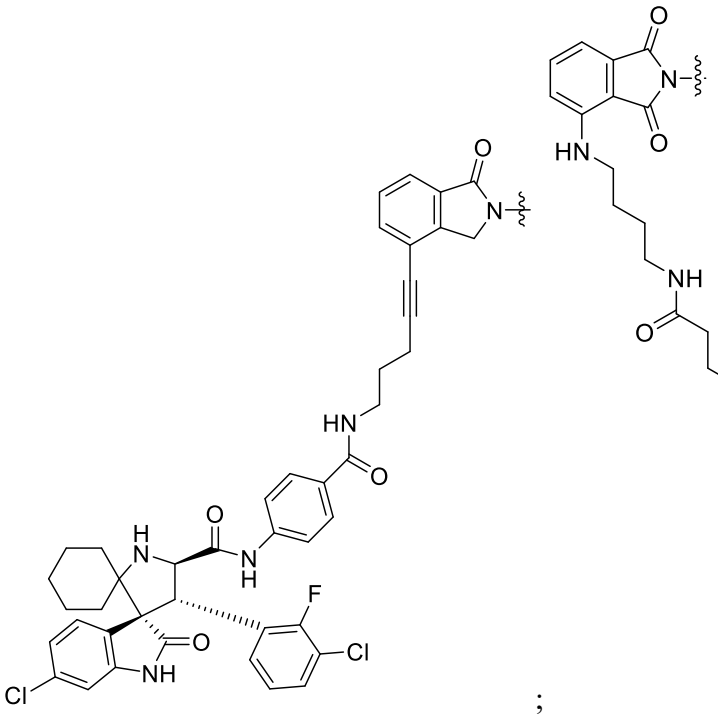


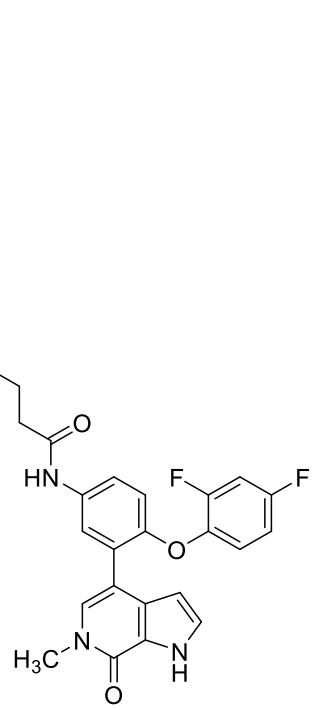
wherein

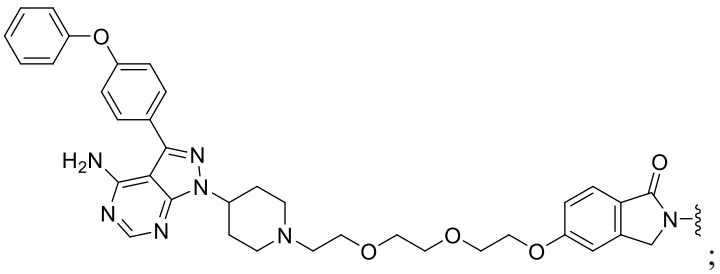
~ indicates the point of attachment to A'; and

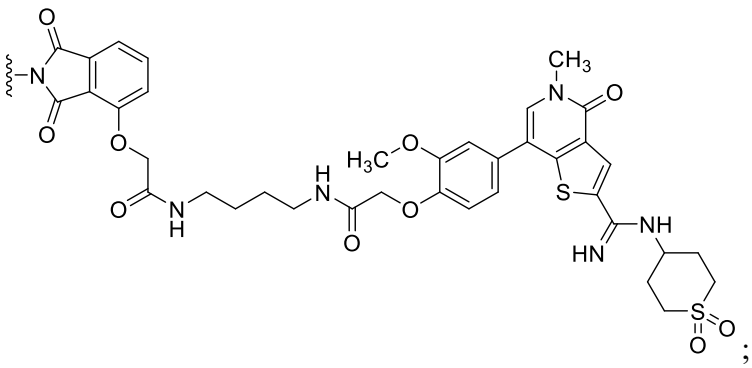
* indicates the point of attachment to L^{100}.

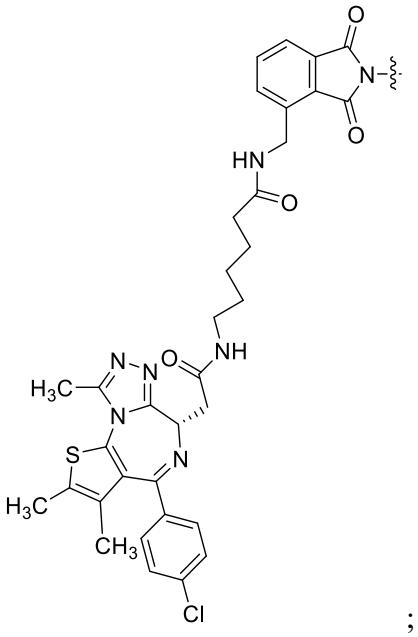
51. The conjugate of any one of claims 1 to 36, 38, or 45 to 50, or a pharmaceutically acceptable salt thereof, wherein R^1 is selected from

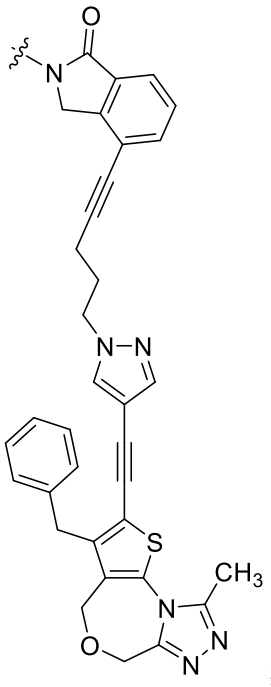
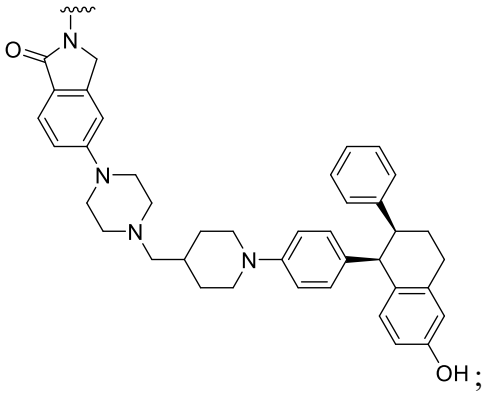
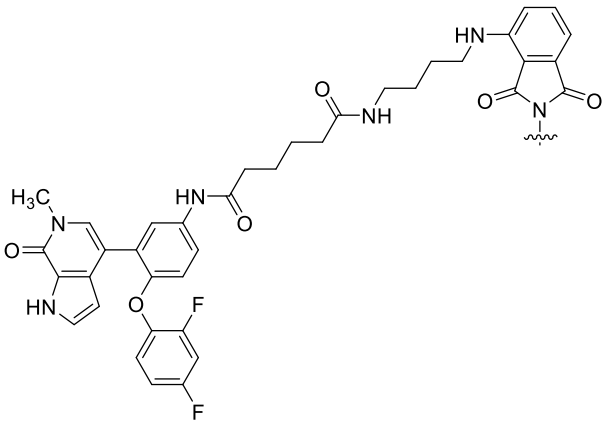
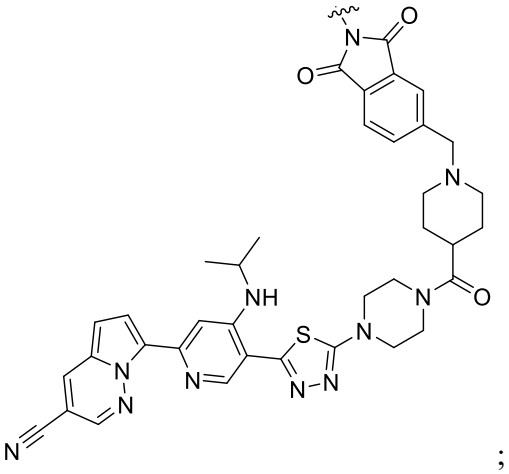
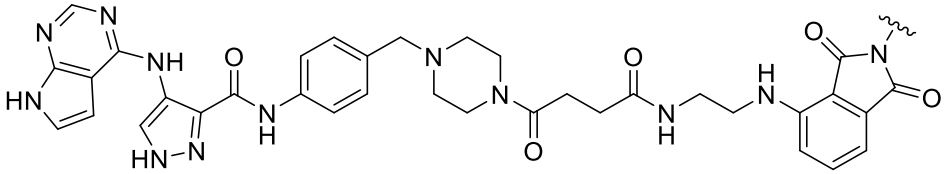
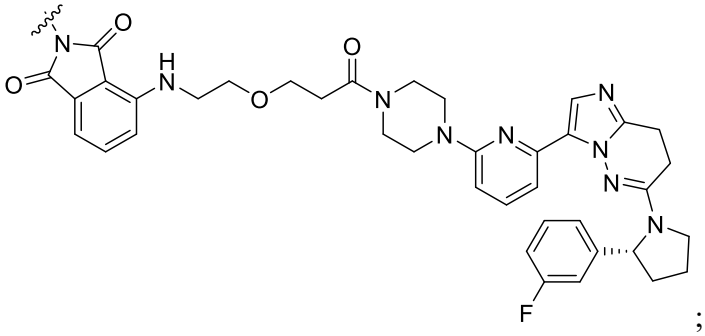

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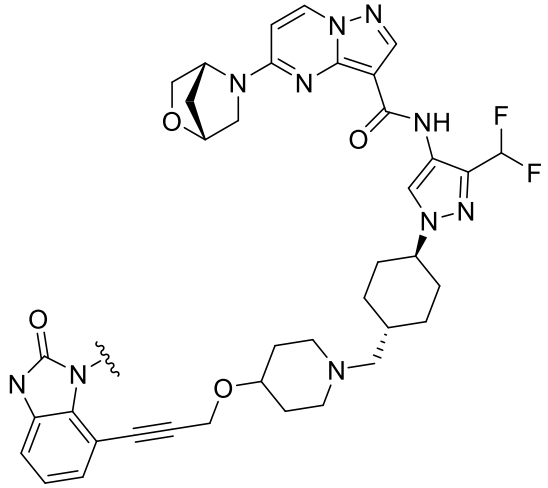

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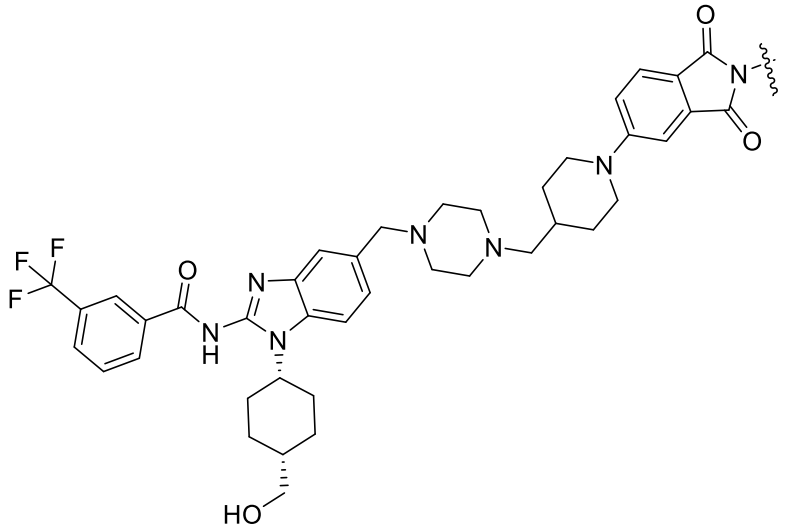

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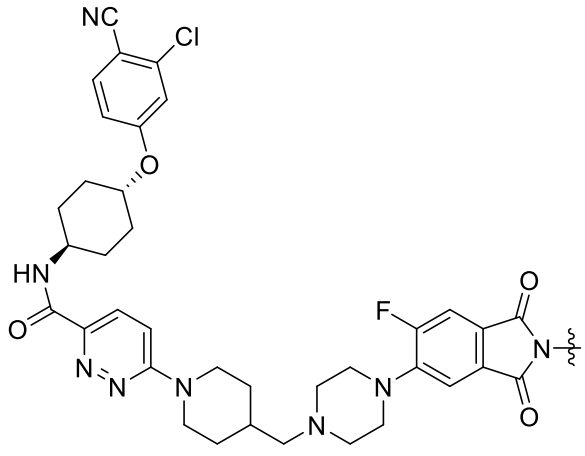

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; and



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wherein  denotes the point of attachment to A'.

52. The conjugate of any one of claims 1 to 51, or a pharmaceutically acceptable salt thereof, wherein (a) the protein that the Bm binds to is CD33 and R^1 binds to mouse double minute 2 homolog (MDM2), (b) the protein that the Bm binds to is prostate specific membrane antigen (PSMA) and R^1 binds to androgen receptor (AR), (c) the protein that the Bm binds to is CD33 and R^1 binds to bromodomain-containing protein 4 (BRD4), (d) the protein that the Bm binds to is HER2 and R^1 binds to G1 to S Phase Transition 1 (GSPT1), (e) the protein that the Bm binds to is CD33 and R^1 binds to GSPT1, (f) the protein that the Bm binds to is CD79b and R^1 binds to IRAK4, (g) the protein that the Bm binds to is HER2 and R^1 binds to BRD4, (h) the protein that the Bm binds to is BCMA and R^1 binds to BRD4, or (i) the protein that the Bm binds to is HER2 and R^1 binds to ER.

53. A pharmaceutical composition comprising a conjugate of any one of claims 1 to 52, or a pharmaceutically acceptable salt thereof, and one or more pharmaceutically acceptable carriers.

54. Use of the conjugate of any one of claims 1 to 52, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of claim 53, in the manufacture of a medicament for treating cancer in a subject in need thereof.

55. The use of claim 54, wherein the cancer is breast cancer, gastric cancer, lymphoma, acute myeloid leukemia, multiple myeloma, head and neck cancer, squamous cell carcinoma, hepatocellular carcinoma, prostate cancer, non-small cell lung cancer, colon cancer, ovarian cancer, neuregulin-1 (NRG1)-positive cancer, lung cancer, or non-Hodgkin lymphoma.

56. The use of claim 54, wherein (a) the protein that the Bm binds to is CD33, R^1 binds to MDM2, and the cancer is acute myeloid leukemia, (b) the protein that the Bm binds to is prostate specific membrane antigen (PSMA), R^1 binds to androgen receptor (AR), and the cancer is prostate cancer, (c) the protein that the Bm binds to is CD33, R^1 binds to bromodomain-containing protein 4 (BRD4), and the cancer is acute myeloid leukemia, (d) the protein that the Bm binds to is HER2, R^1 binds to G1 to S Phase Transition 1 (GSPT1), and the cancer is breast cancer, gastric cancer, non-small cell lung cancer, bile duct cancer, colon cancer, ovarian cancer, or neuregulin-1 (NRG1)-positive cancer, (e) the protein that the Bm binds to is CD79b, R^1 binds

to IRAK4, and the cancer is a non-Hodgkin lymphoma, (f) the protein that the Bm binds to is HER2, R^1 binds to BRD4, and the cancer is breast cancer, gastric cancer, non-small cell lung cancer, bile duct cancer, colon cancer, ovarian cancer, or neuregulin-1 (NRG1)-positive cancer, or (g) the protein that the Bm binds to is BCMA, R^1 binds to BRD4, and the cancer is multiple myeloma.

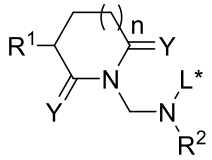
57. The use of any one of claims 54 to 56, wherein a pharmaceutically acceptable amount of an additional agent is to be administered to the subject prior to, after, or simultaneously with the conjugate of any one of claims 1 to 52, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of claim 53.

58. The use of claim 57, wherein the additional agent is a cytotoxic agent or an immune response modifier.

59. The use of claim 58, wherein the immune response modifier is a checkpoint inhibitor.

60. The use of claim 59, wherein the checkpoint inhibitor comprises a PD-1 inhibitor, a PD-L1 inhibitor, a CTLA-4 inhibitor, a TIM3 inhibitor, and/or a LAG-3 inhibitor.

61. A compound of formula (XXII):



(XXII),

or a pharmaceutically acceptable salt thereof, wherein:

n is 0 or 1;

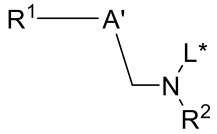
R^1 is a compound that induces a protein-protein interaction;

R^2 is selected from hydrogen, $-(CH_2CH_2O)_v-CH_3$, C_2-C_6alkenyl, C_1-C_6alkyl; C_2-C_6alkynyl, benzyl, C_3-C_6cycloalkyl, and C_3-C_6cycloalkyl(C_1-C_3alkyl), wherein v is from 1 to 24;

each Y is independently S or O; and

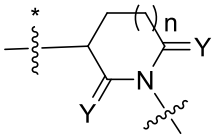
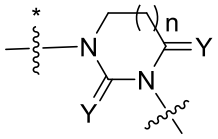
L* is a cleavable linker precursor that conjugates to the binding moiety.

62. A compound of formula (XXXI):



(XXXI),

or a pharmaceutically acceptable salt thereof, wherein:

A' is  or , wherein

n is 0 or 1;

each Y is independently S or O;

 indicates the point of attachment to R^1; and

 indicates the point of attachment to the methylene group;

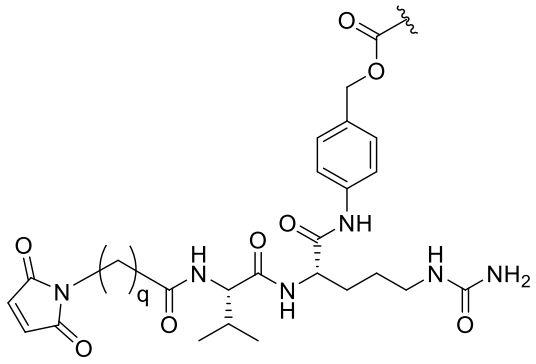
R^1, together with A', is a compound that induces a protein-protein interaction;

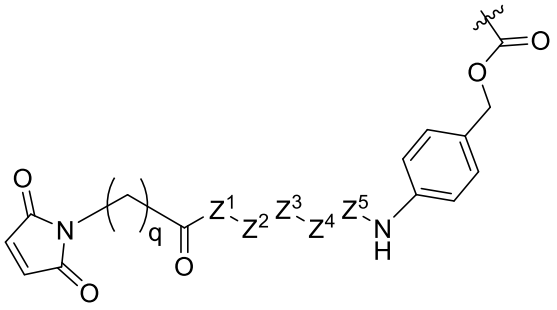
R^2 is selected from hydrogen, a group that provides stability to R^1-A', a group that provides solubility to R^1-A', and a group that provides stability and solubility to R^1-A'; and

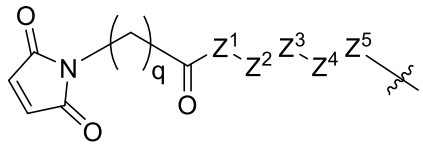
L* is a cleavable linker precursor that conjugates to the binding moiety.

63. The compound of claim 61 or 62, or a pharmaceutically acceptable salt thereof, wherein L* is a protease cleavable linker precursor.

64. The compound of any one of claims 61 to 63, or a pharmaceutically acceptable salt thereof, wherein L* is selected from the group consisting of


;


; and


;

wherein:

q is from 2 to 10;

Z^1, Z^2, Z^3, Z^4, and Z^5 are each independently absent or a naturally-occurring amino acid residue in the L- or D-configuration, provided that at least two of Z^1, Z^2, Z^3, Z^4, and Z^5 are amino acid residues; and

 is the point of attachment to the parent molecular moiety.

65. The compound of claim 64, or a pharmaceutically acceptable salt thereof, wherein Z^1, Z^2, Z^3, Z^4, and Z^5 are independently absent or selected from the group consisting of L-valine, D-valine, L-citrulline, D-citrulline, L-alanine, D-alanine, L-glutamine, D-glutamine, L-glutamic acid, D-glutamic acid, L-aspartic acid, D-aspartic acid, L-asparagine, D-asparagine, L-phenylalanine, D-phenylalanine, L-lysine, D-lysine, and glycine; provided that at least two of Z^1, Z^2, Z^3, Z^4, and Z^5 are amino acid residues.

66. The compound of claim 65, or a pharmaceutically acceptable salt thereof, wherein:

Z^1 is absent or glycine;

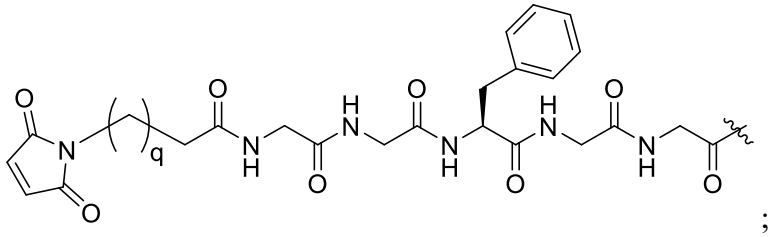
Z^2 is absent or selected from the group consisting of L-glutamine, D-glutamine, L-glutamic acid, D-glutamic acid, L-aspartic acid, D-aspartic acid, L-alanine, D-alanine, and glycine;

Z^3 is selected from the group consisting of L-valine, D-valine, L-alanine, D-alanine, L-phenylalanine, D-phenylalanine, and glycine;

Z^4 is selected from the group consisting of L-citrulline, D-citrulline, L-asparagine, D-asparagine, L-lysine, D-lysine, L-phenylalanine, D-phenylalanine, and glycine; and

Z^5 is absent or glycine.

67. The compound of any one of claims 61 to 66, or a pharmaceutically acceptable salt thereof, wherein L* is



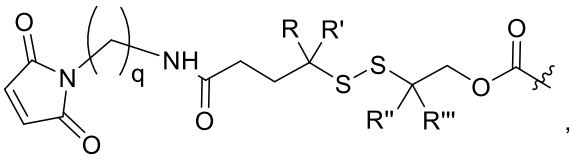
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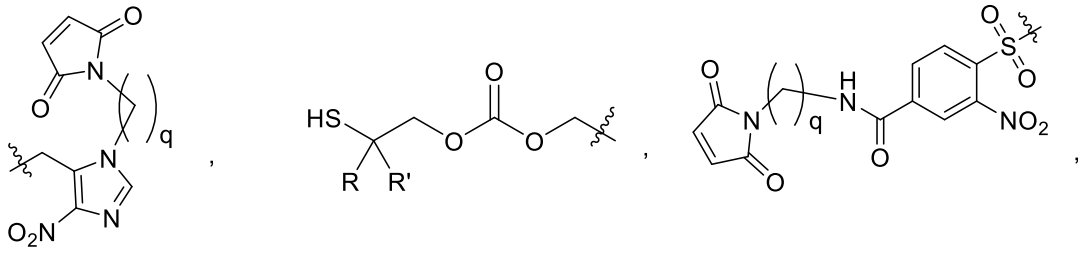
wherein ≈ is the point of attachment to the parent molecular moiety.

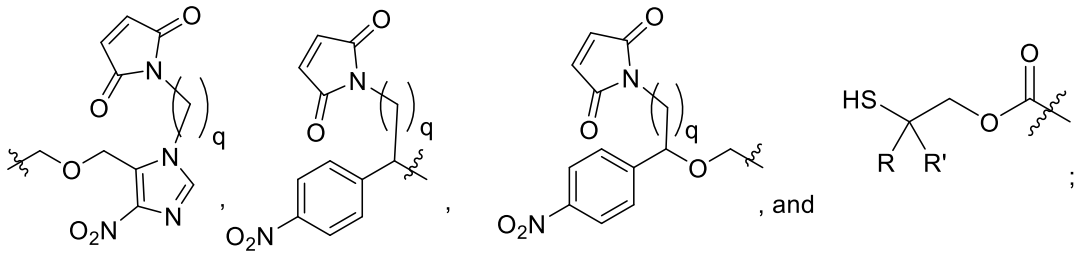
68. The compound of claim 67, or a pharmaceutically acceptable salt thereof, wherein q is 4.

69. The compound of claim 61 or 62, or a pharmaceutically acceptable salt thereof, wherein L* is a bioreducible linker precursor.

70. The compound of any one of claims 61, 62, or 69, or a pharmaceutically acceptable salt thereof, wherein L* is selected from the group consisting of







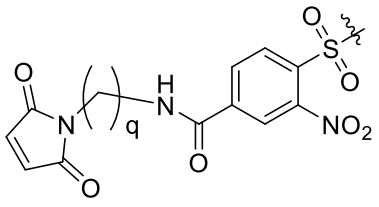
wherein:

q is from 2 to 10;

R, R', R'', and R''' are each independently selected from hydrogen, C_1-C_6alkoxyC_1-C_6alkyl, $(C_1$-$C_6)_2NC_1$-C_6alkyl, and C_1-C_6alkyl, or, two geminal R groups, together with the carbon atom to which they are attached, can form a cyclobutyl or cyclopropyl ring;

~ is the point of attachment to the parent molecular moiety.

71. The compound of claim 70, or a pharmaceutically acceptable salt thereof, wherein L* is

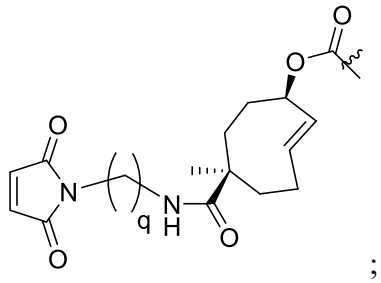


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72. The compound of claim 71, or a pharmaceutically acceptable salt thereof, wherein q is 2.

73. The compound of claim 61 or 62, or a pharmaceutically acceptable salt thereof, wherein L* is a click-to-release linker precursor.

74. The compound of claim 73, or a pharmaceutically acceptable salt thereof, wherein L* is



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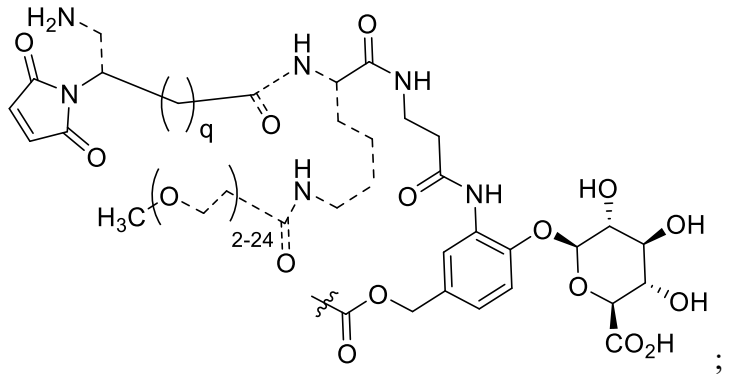
wherein:

q is from 2 to 10; and

~~ is the point of attachment to the parent molecular moiety.

75. The compound of claim 61 or 62, or a pharmaceutically acceptable salt thereof, wherein L* is a beta-glucuronidase cleavable linker precursor.

76. The compound of claim 75, or a pharmaceutically acceptable salt thereof, wherein L* is



;

wherein:

q is from 2 to 10;

---- is absent or a bond; and

~~ is the point of attachment to the parent molecular moiety.

77. The compound of any one of claims 62 to 76, or a pharmaceutically acceptable salt thereof, wherein R^2 is a group that provides stability to R^1-A'.

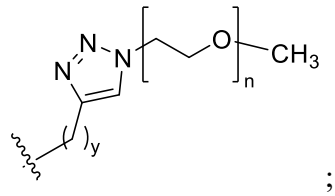
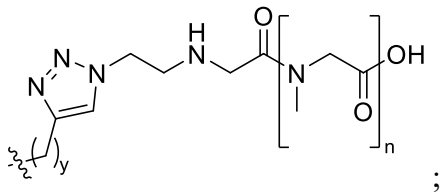
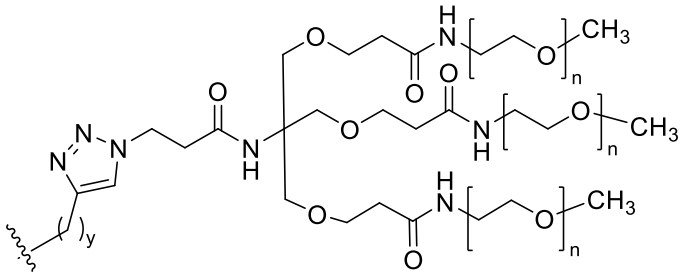
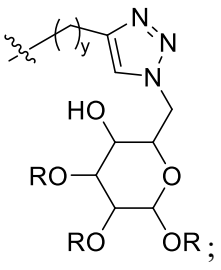
78. The compound of any one of claims 62 to 77, or a pharmaceutically acceptable salt thereof, wherein R^2 is selected from C_2-C_6alkenyl, C_1-C_6alkyl; C_2-C_6alkynyl, benzyl, C_3-C_6cycloalkyl, and C_3-C_6cycloalkyl(C_1-C_3alkyl),

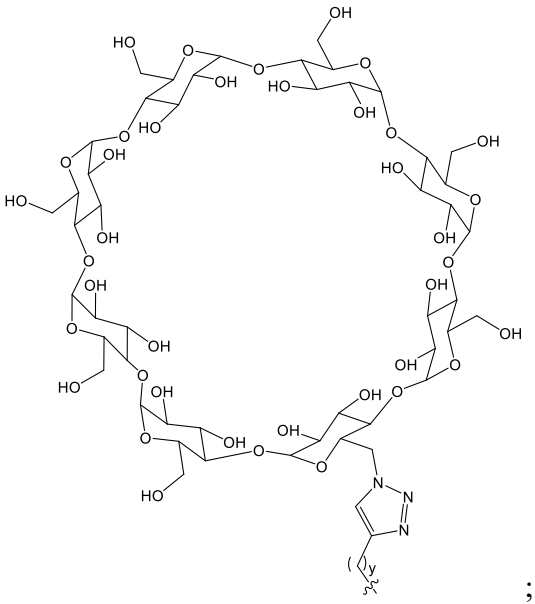
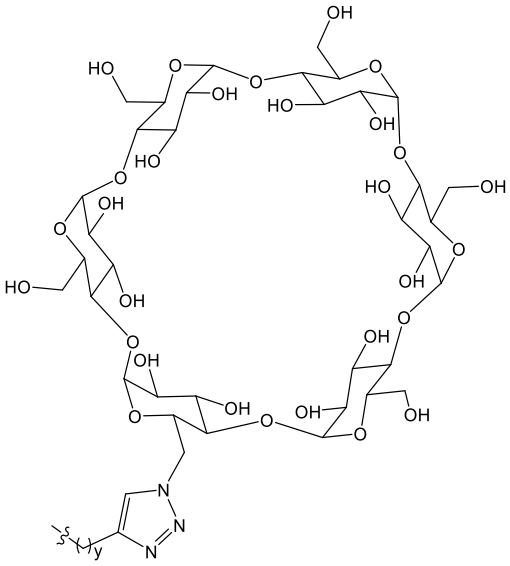
79. The compound of any one of claims 62 to 78, or a pharmaceutically acceptable salt thereof, wherein R^2 is C_1-C_6alkyl.

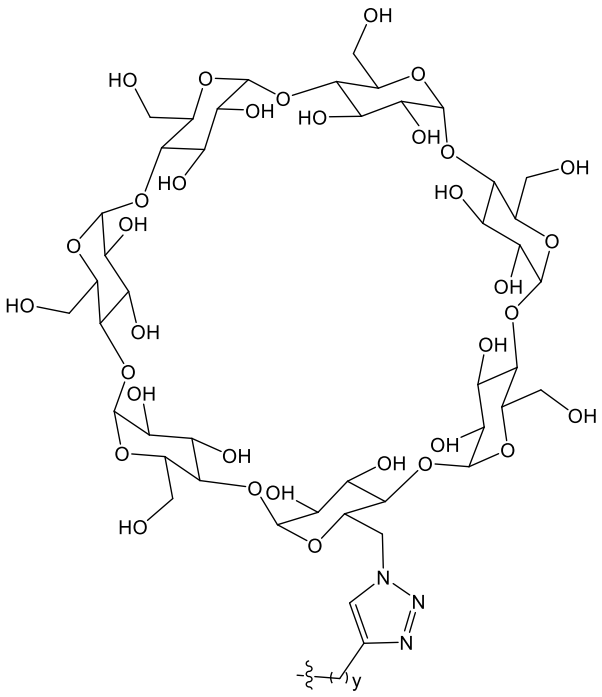
80. The compound of any one of claims 62 to 79, or a pharmaceutically acceptable salt thereof, wherein R^2 is methyl.

81. The compound of any one of claims 62 to 76, or a pharmaceutically acceptable salt thereof, wherein R^2 is a group that provides solubility to R^1-A'.

82. The compound of any one of claims 62 to 76 or 81, or a pharmaceutically acceptable salt thereof, wherein R^2 is selected from:


;

;

;

;



; ; and


;

wherein:

each n is independently 1, 2, 3, 4, or 5;

each y is independently 1 or 2;

each R is independently hydrogen, $C_6H_{11}O_5$, $C_{12}H_{21}O_{10}$, $C_{18}H_{31}O_{15}$, or $C_{24}H_{41}O_{20}$.

83. The compound of any one of claims 61 to 82, or a pharmaceutically acceptable salt thereof, wherein each Y is O.

84. The compound of any one of claims 62 to 83, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a PPI modulator.

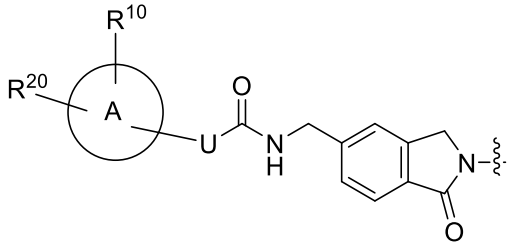
85. The compound of any one of claims 62 to 83, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a targeted protein degrader.

86. The compound of any one of claims 62 to 83, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a molecular glue.

87. The compound of any one of claims 62 to 86, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a substituted isoindoline.

88. The compound of any one of claims 62 to 87, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a 5'-substituted isoindoline.

89. The compound of any one of claims 61 to 88, or a pharmaceutically acceptable salt thereof, wherein R^1 has the formula:



wherein:

$\sim$ denotes the point of attachment to the parent molecular moiety;

A is phenyl or a C_4-C_{10}cycloalkyl ring;

R^{10} is independently selected from hydrogen and halo;

U is selected from NH and CF_2; and

R^{20} is selected from $–CH_3$, $–C(O)R^3$, $-N(R^4)_2$, $–(CH_2)_nOH$, $–(CH_2)_nN(R^4)_2$, $–(CH_2)_nQ'(CH_2)_mOH$, $–(CH_2)_nQ'(CH_2)_mSH$, and $–(CH_2)_nQ'(CH_2)_mN(R^4)_2$; wherein

R^3 is hydrogen or C_1-C_6alkyl;

each R^4 is independently hydrogen or C_1-C_6alkyl;

Q' is O, S, or NR^4;

n is 1-6; and

m is 2-5.

90. The compound of claim 89, or a pharmaceutically acceptable salt thereof, wherein

A is phenyl;

U is NH;

R^{10} is halo; and

R^{20} is methyl.

91. The compound of claim 89, or a pharmaceutically acceptable salt thereof, wherein

A is phenyl;

U is NH;

R^{10} is halo; and

R^{20} is $-(CH_2)_2O(CH_2)_2NHCH_3$.

92. The compound of any one of claims 62 to 85, or a pharmaceutically acceptable salt thereof, wherein R^1-A' is a proteolysis targeting chimera (PROTAC).

93. The compound of any one of claims 61 to 85 or 92, or a pharmaceutically acceptable salt thereof, wherein R^1 has the formula:

$$POI– L^{100}\text{-}CBN;$$

wherein:

POI is a compound that binds to a protein of interest;

L^{100} is a PROTAC linker; and

CBN is a cereblon binding moiety.

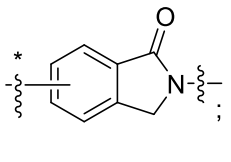
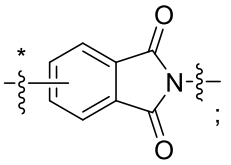
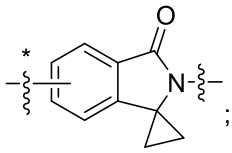
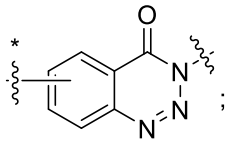
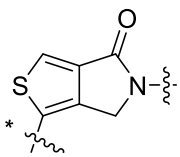
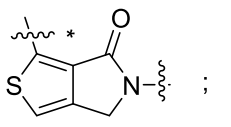
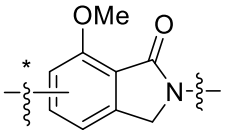
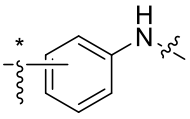
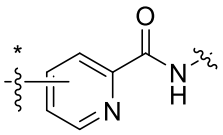
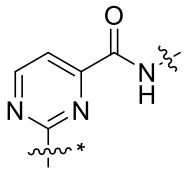
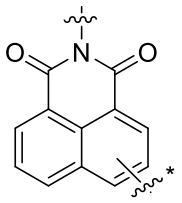
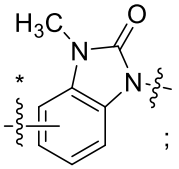
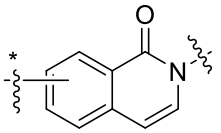
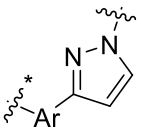
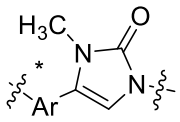
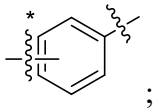
94. The compound of claim 93, or a pharmaceutically acceptable salt thereof, wherein the protein of interest is a nuclear hormone receptor, a translation termination factor, a transcription factor, a cyclin-dependent kinase, a tyrosine kinase, a serine/threonine kinase, or an E3 ligase.

95. The compound of claim 93 or 94, or a pharmaceutically acceptable salt thereof, wherein the protein of interest is selected from CD33, GSPT1, BRD4, AR, ER, IKZF1/3, CK1a, BCL-XL,

IKZF2, IRAK4, BTK, STAT3, BTK and iMiD, BRD9, TRK, MDM2, CDK2/CDK9, CD97b, and EGFR.

96. The compound of any one of claims 93 to 95, or a pharmaceutically acceptable salt thereof, wherein L^{100} comprises one or more functional groups selected from glycol, alkyl, alkynyl, triazolyl, piperazinyl, piperidinyl, and combinations thereof.

97. The compound of any one of claims 93 to 96, or a pharmaceutically acceptable salt thereof, wherein CBN is selected from

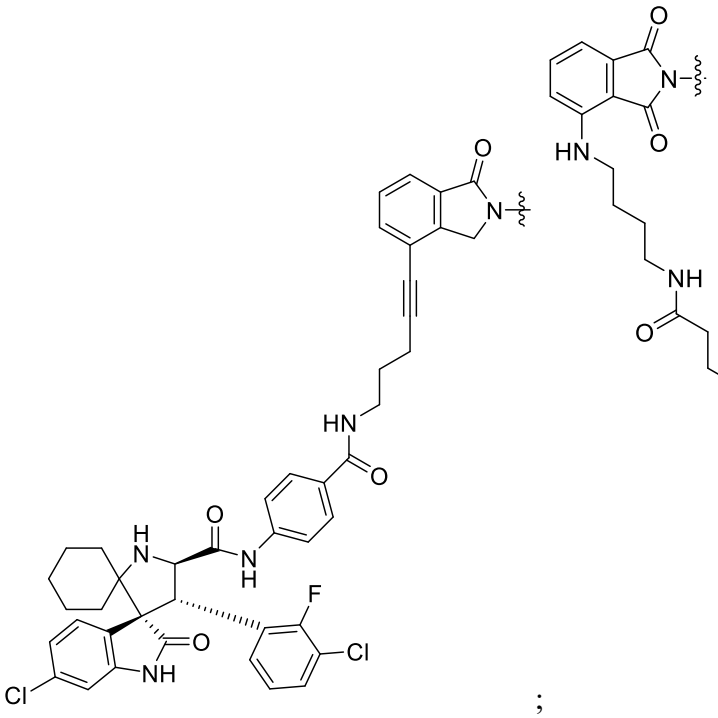

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wherein

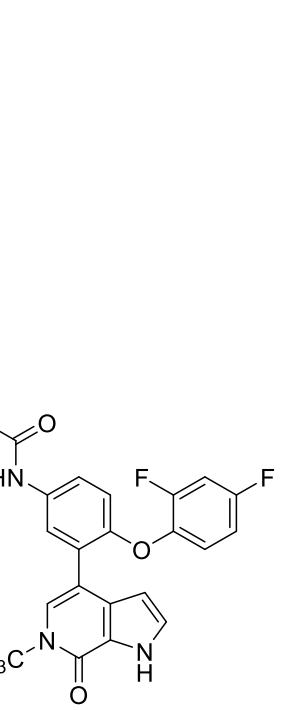
 indicates the point of attachment to A'; and

 indicates the point of attachment to L^{100}.

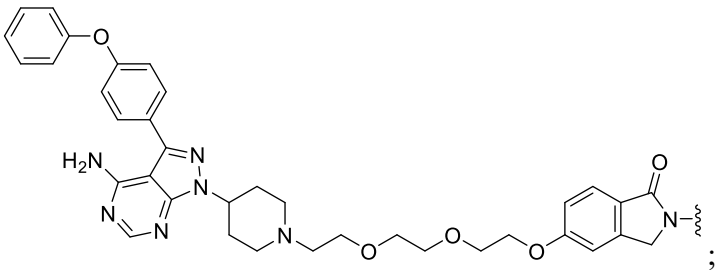
98. The compound of any one of claims 62 to 85 or 92 to 97, or a pharmaceutically acceptable salt thereof, wherein R^1 is selected from



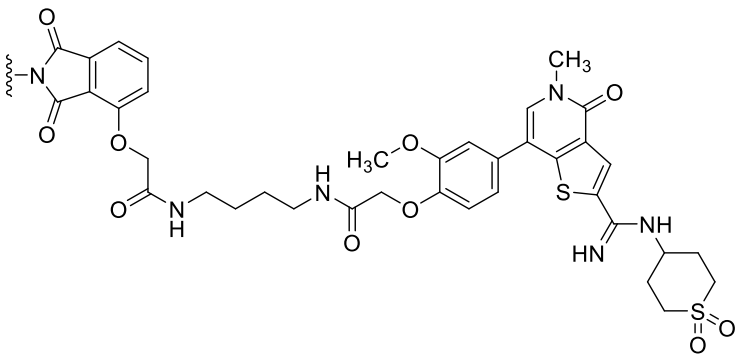
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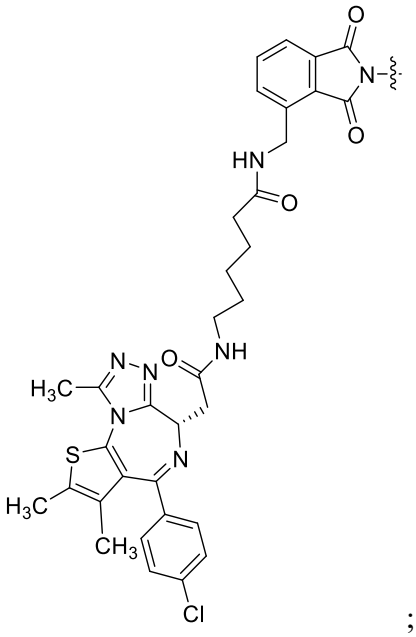
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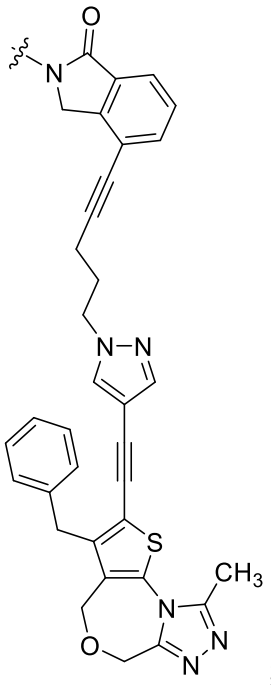
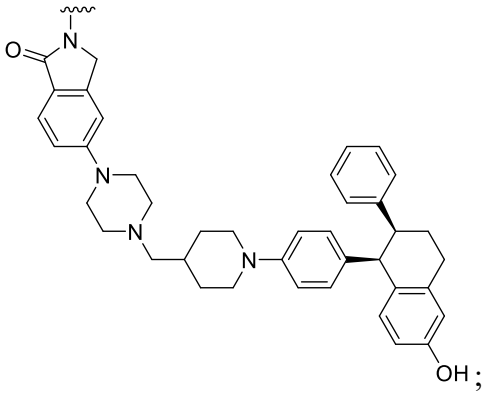
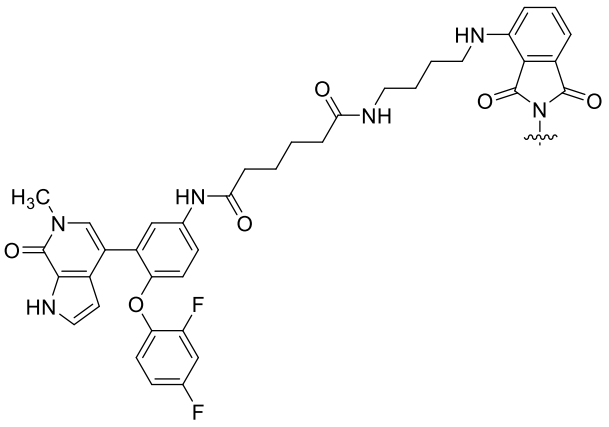
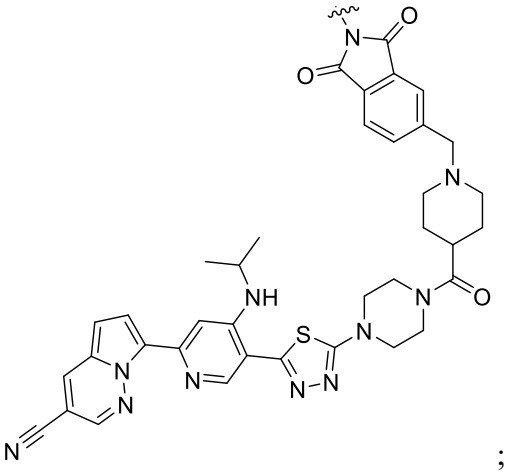
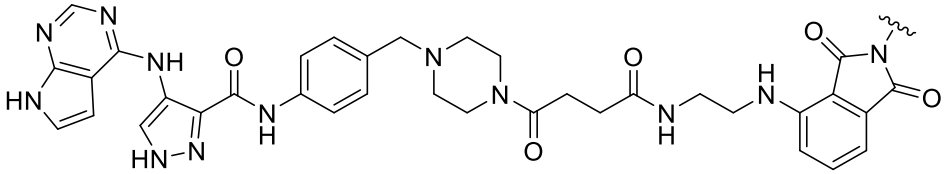
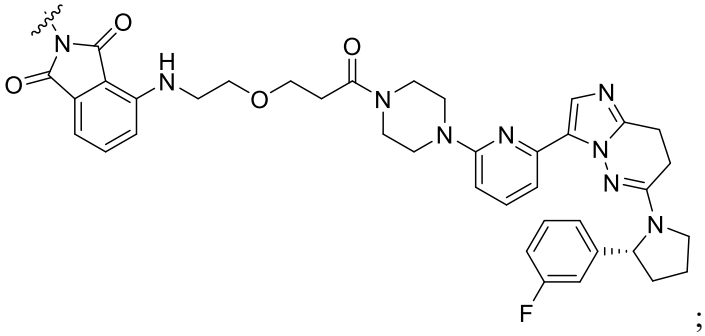
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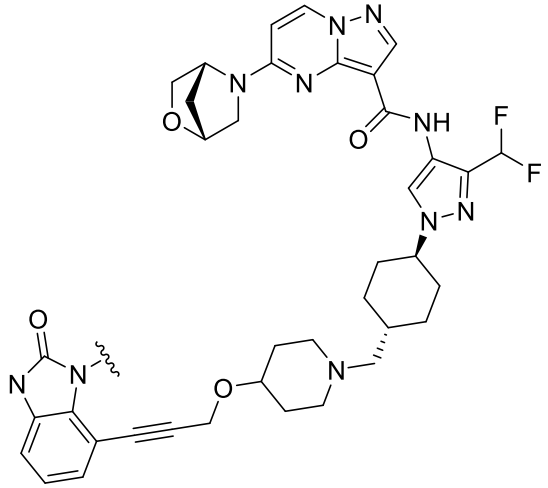


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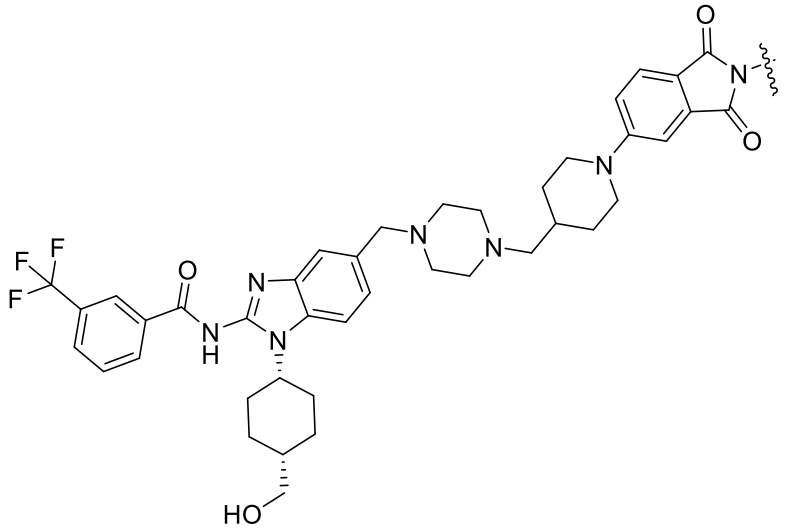


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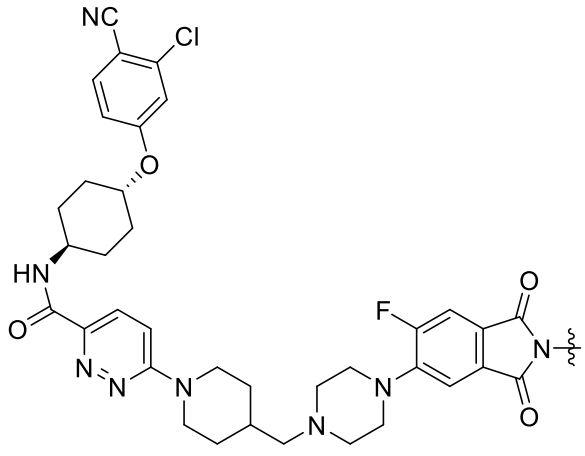

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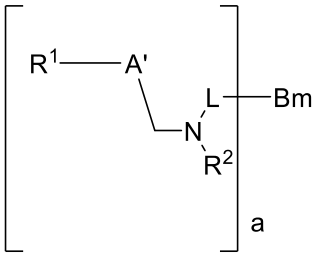
; and



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wherein ~ denotes the point of attachment to A’.

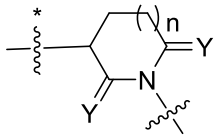
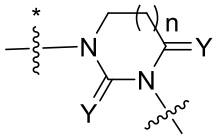
99. A method for preparing a conjugate of formula (XXXII):



(XXXII),

or a pharmaceutically acceptable salt thereof, wherein:

a is from 1 to 10;

A’ is  or , wherein

n is 0 or 1;

each Y is independently S or O;

* indicates the point of attachment to R^1; and

~ indicates the point of attachment to the methylene group;

R^1, together with A’, is a compound that induces a protein-protein interaction;

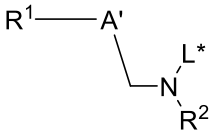
R^2 is selected from hydrogen, a group that provides stability to R^1-A’, a group that provides solubility to R^1-A’, and a group that provides stability and solubility to R^1-A’;

L is a cleavable linker; and

Bm is a binding moiety that is capable of specifically binding to a protein;

the method comprising:

reacting a compound of (XXXI)



(XXXI),

or a pharmaceutically acceptable salt thereof, wherein:

A’, R^1, and R^2 are as defined above and

L* is a cleavable linker precursor;
with a binding moiety that is capable of specifically binding to a protein.

100. The method of claim 99, further comprising attaching L* to a cysteine, lysine, tyrosine, or glutamine in the Bm.

101. The method of claim 100, wherein the cysteine or lysine is an engineered cysteine or lysine.

102. The method of claim 100, wherein the cysteine or lysine is endogenous to the Bm.

103. The method of claim 99, wherein the binding moiety is an antibody or an antigen binding portion thereof.

104. The method of claim 103, wherein L* is attached to an engineered cysteine at heavy chain position S239 and/or K334 of the antibody or antigen binding portion thereof according to EU numbering.

105. The method of claim 103, wherein L* is attached to the glutamine at heavy chain position 295 of the antibody or antigen binding portion thereof according to EU numbering.

106. The method of any one of claims 100 to 105, wherein the attaching is via site-specific conjugation.

107. The method of any one of claims 100 to 106, wherein (a) the protein that the Bm binds to is CD33 and R^1 binds to mouse double minute 2 homolog (MDM2), (b) the protein that the Bm binds to is prostate specific membrane antigen (PSMA) and R^1 binds to androgen receptor (AR), (c) the protein that the Bm binds to is CD33 and R^1 binds to bromodomain-containing protein 4 (BRD4), (d) the protein that the Bm binds to is HER2 and R^1 binds to G1 to S Phase Transition 1 (GSPT1), (e) the protein that the Bm binds to is CD33 and R^1 binds to GSPT1, (f) the protein that the Bm binds to is CD79b and R^1 binds to IRAK4, (g) the protein that the Bm binds to is HER2 and R^1 binds to BRD4, (h) the protein that the Bm binds to is BCMA and R^1 binds to BRD4, or (i) the protein that the Bm binds to is HER2 and R^1 binds to ER.

108. The method of any one of claims 99 to 107, wherein R^1-A' is a targeted protein degrader.

109. The method of 108, wherein R^1 has the formula:

$$POI–L^{100}\text{-}CBN;$$

wherein:

POI is a compound that binds to a protein of interest;

L^{100} is a PROTAC linker; and

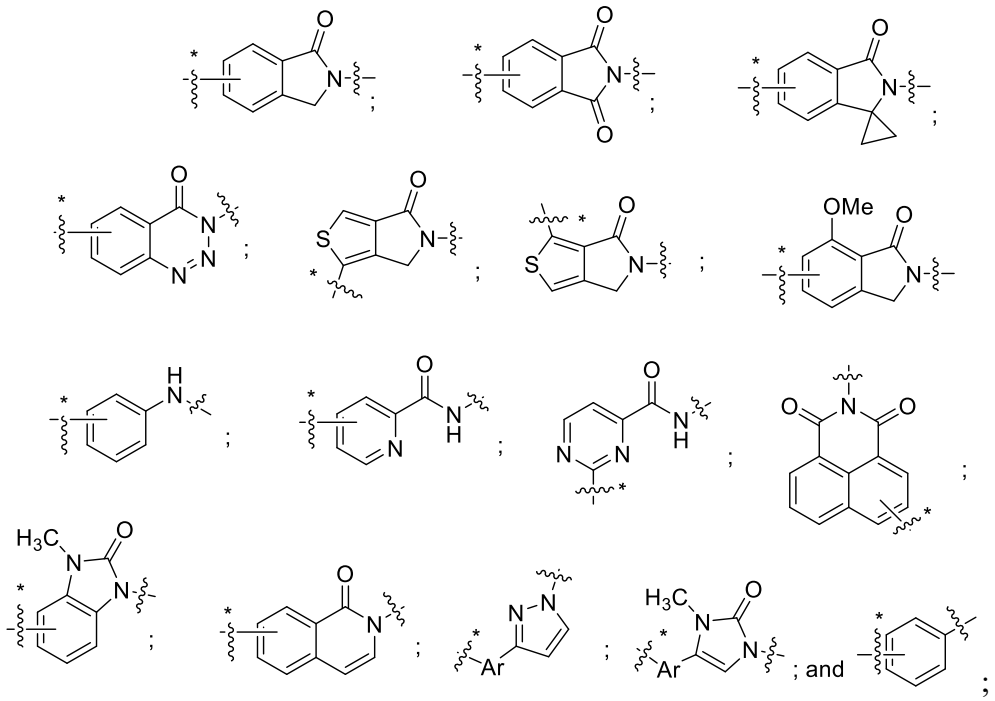
CBN is a cereblon binding moiety.

110. The method of claim 109, wherein the protein of interest is a nuclear hormone receptor, a translation termination factor, a transcription factor, a cyclin-dependent kinase, a tyrosine kinase, a serine/threonine kinase, or an E3 ligase

111. The method of claim 109 or 110, wherein the protein of interest is selected from CD33, GSPT1, BRD4, AR, ER, IKZF1/3, CK1a, BCL-XL, IKZF2, IRAK4, BTK, STAT3, BTK and iMiD, BRD9, TRK, MDM2, CDK2/CDK9, CD97b, and EGFR.

112. The method of any one of claims 109 to 111, wherein L^{100} comprises one or more functional groups selected from glycol, alkyl, alkynyl, triazolyl, piperazinyl, piperidinyl, and combinations thereof.

113. The method of any one of claims 109 to 112, wherein CBN is selected from:

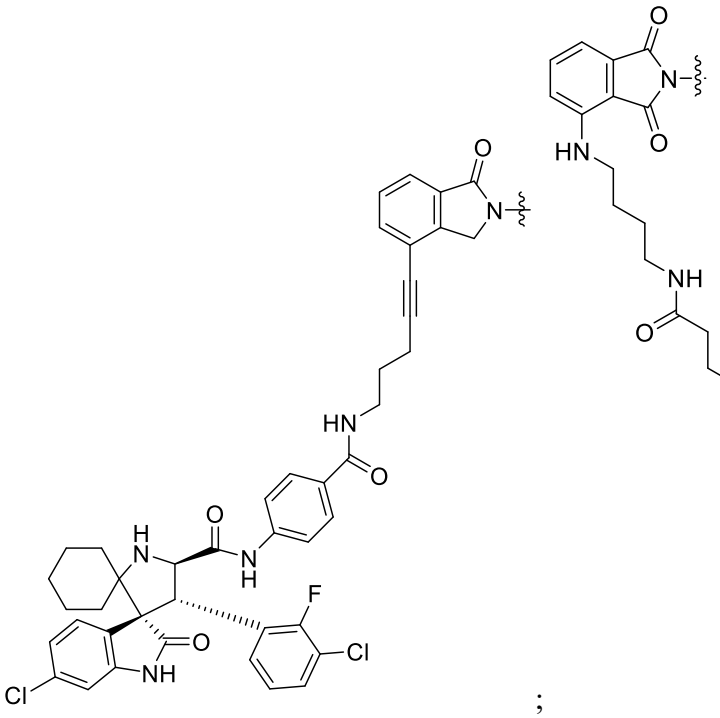


wherein

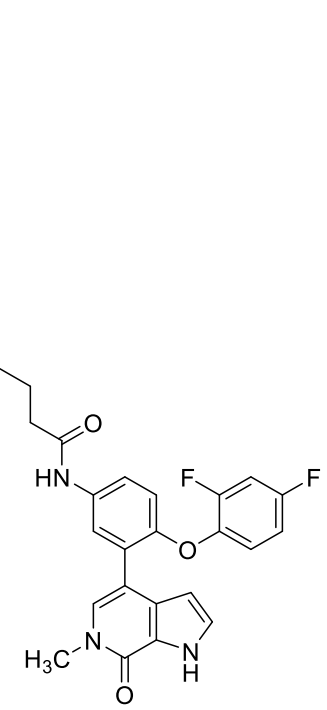
$\sim$ indicates the point of attachment to A'; and

$\overset{*}{\sim}$ indicates the point of attachment to L^{100}.

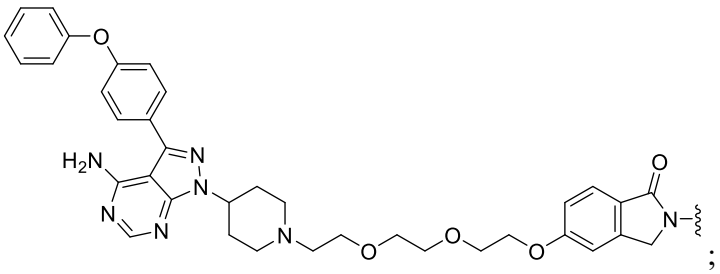
114. The method of any one of claims 109 to 113, wherein R^1 is selected from:



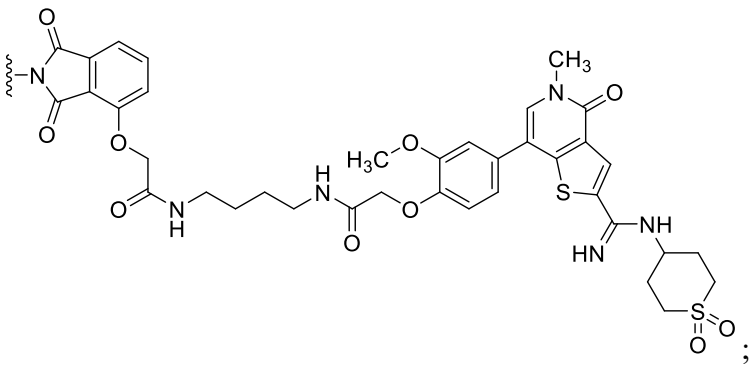
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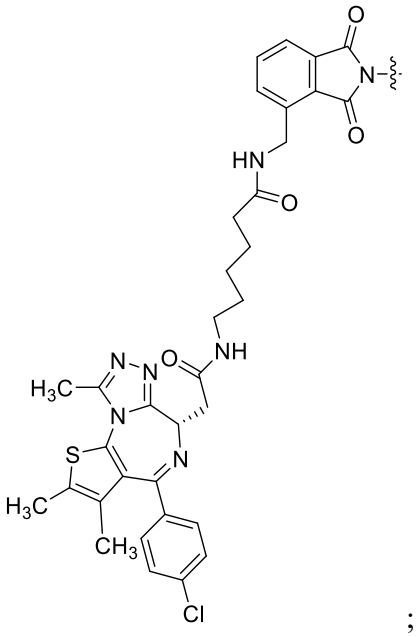
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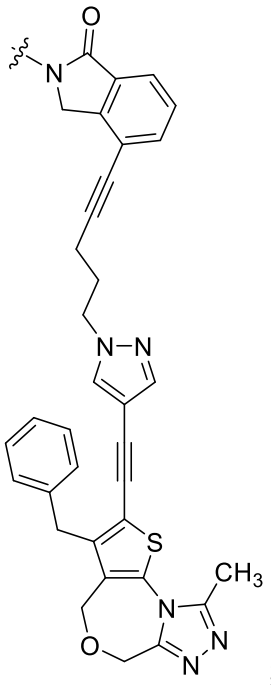
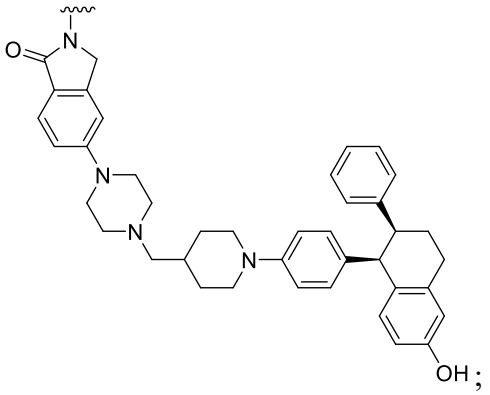
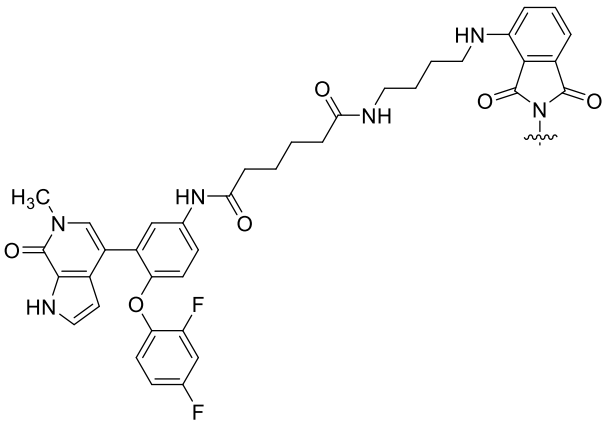
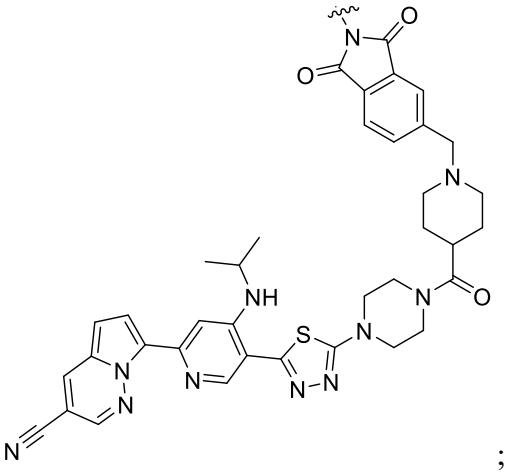
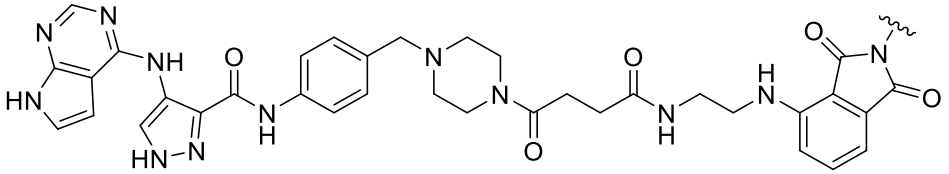
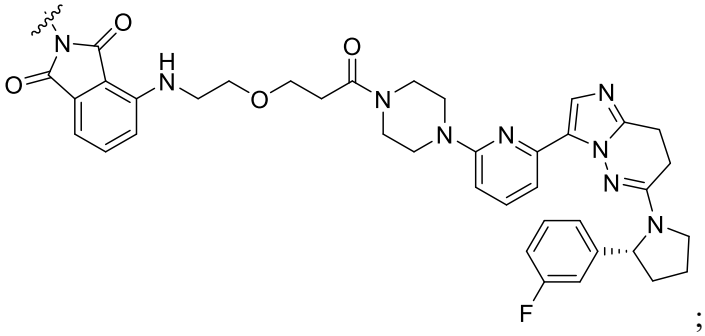
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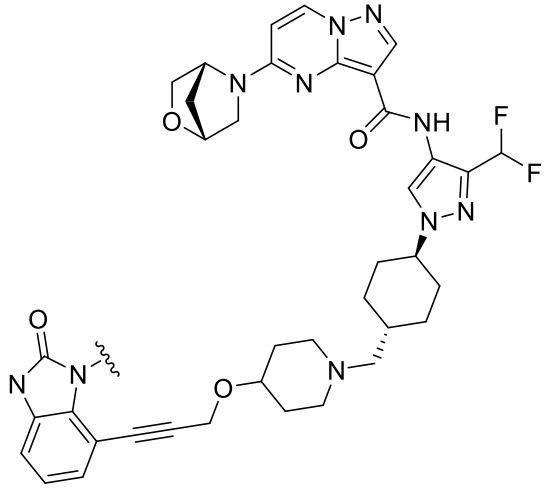


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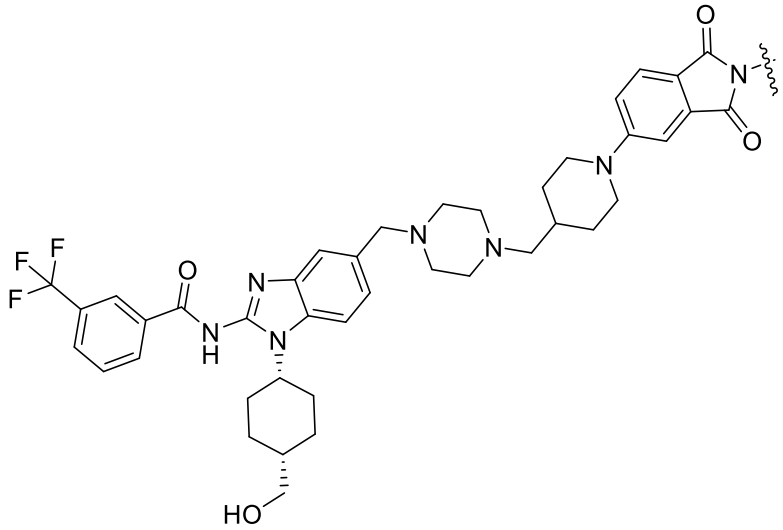


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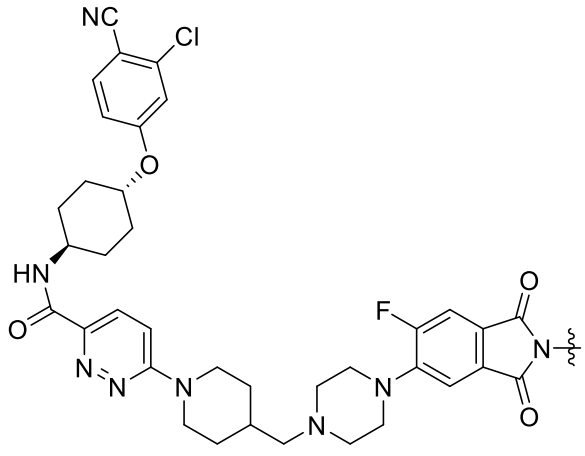

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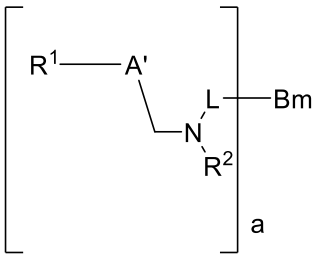
;

wherein ~ denotes the point of attachment to A'.

115. A conjugate made by the method of any one of claims 99 to 114.

116. A method of delivering a conjugate that induces a protein-protein interaction to a cell, the method comprising contacting the cell with a conjugate or composition of any one of claims 1 to 53 or 115, or a pharmaceutically acceptable salt thereof.

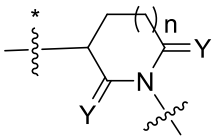
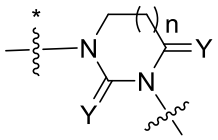
117. A method of delivering a conjugate of formula (XXXII):



(XXXII),

or a pharmaceutically acceptable salt thereof to a cell, wherein:

a is from 1 to 10;

A' is  or , wherein

n is 0 or 1;

each Y is independently S or O;

* indicates the point of attachment to R^1; and

~ indicates the point of attachment to the methylene group;

R^1, together with A', is a compound that induces a protein-protein interaction;

R^2 is selected from hydrogen, a group that provides stability to R^1-A', a group that provides solubility to R^1-'A, and a group that provides stability and solubility to R^1-A';

L is a cleavable linker; and

Bm is a binding moiety that is capable of specifically binding to a protein;

the method comprising contacting the cell with a conjugate of formula (XXXII), or a pharmaceutically acceptable salt thereof.

118. The conjugate of any one of claims 1 to 52, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of claim 53, for use in therapy.