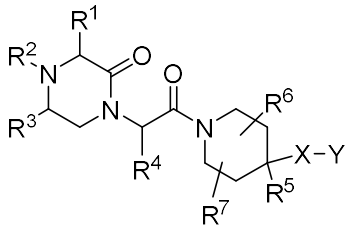
CLAIMS

1. A compound of formula (Ia)



(Ia),

or a pharmaceutically acceptable salt, hydrate, solvate or stereoisomer thereof, wherein:

R^1 is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, and C_{1-3} alkyl substituted by cycloalkyl, aryl, or heteroaryl, wherein the cycloalkyl, aryl, or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl;

R^2 is selected from H, $C(O)R^{14}$, $C(O)NR^{15}R^{15}$, $C(O)OR^{15}$, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, C_{1-5} alkyl-OR^8, C_{1-3} alkanediyl-O-C_{1-3} alkanediyl-O-C_{1-3} alkanediyl, C_{1-5} alkyl-$NHCOR^{13}$, and C_{1-3} alkyl substituted by cycloalkyl, aryl, or heteroaryl, wherein the cycloalkyl, aryl, or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; with the proviso that when R^2 is $C(O)NR^{15}R^{15}$, both R^{15} can form a ring wherein the ring contains the N of $NR^{15}R^{15}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8;

R^3 and R^7 are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl, wherein the alkyl, alkenyl, alkynyl, cycloalkyl, or cycloalkenyl is optionally substituted by halogen, OR^8, or NR^8R^{11}; or R^3 and R^7 are each independently C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl;

R^4 is selected from C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, and C_{1-3} alkyl substituted by cycloalkyl, aryl, or heteroaryl, wherein the cycloalkyl, aryl, or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl;

R^5 is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, OR^8, C_{1-3} alkyl-OR^8, and SR^8; and wherein R^5 can form a ring with any part of X or Y, wherein the ring optionally contains a carbonyl group;

R^6 is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl, wherein the alkyl, alkenyl, alkynyl, cycloalkyl, or cycloalkenyl is optionally substituted by halogen, OR^8, or NR^8R^{11}; or R^6 is C_{1-3} alkyl substituted by $C(O)NR^8R^{11}$; or R^6 is C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; and wherein R^6 can form a ring with any part of X; or R^6 is imidazolidinone;

R^8 and R^{11} are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl;

X is selected from a bond, C_{1-7} alkanediyl, C_{2-7} alkenediyl, C_{2-7} alkynediyl, C_{3-9} cycloalkanediyl, C_{4-6} cycloalkenediyl, -O-, C_{1-3} alkanediyl-O-, -O-C_{1-7} alkanediyl, -O-C_{3-9} cycloalkanediyl, C_{1-3} alkanediyl-O-C_{1-7} alkanediyl, C_{1-7} heteroalkanediyl, and -S-C_{1-7} alkanediyl; and wherein X can form a ring or a polycyclic system with any part of R^5, R^6, or Y, wherein the ring optionally contains a carbonyl group;

Y is selected from H, $C(O)NR^{10}R^{12}$, $C(O)OR^{10}$, $R^{10}NC(O)NR^{10}R^{12}$, $OC(O)R^{10}$, $OC(O)NR^{10}R^{12}$, $S(O)_nR^8$ wherein n is 0, 1 or 2, $SO_2NR^{10}R^{12}$, $NR^{10}SO_2R^{10}$, $NR^{10}R^{12}$, $HNCOR^8$, CN, C_{3-7}-cycloalkyl optionally containing a heteroatom in the ring selected from O and N, wherein if the heteroatom is N it is optionally substituted by R^8, S-aryl, O-aryl, S-heteroaryl, and O-heteroaryl, wherein the S-aryl, O-aryl, S-heteroaryl, or O-heteroaryl is optionally substituted by one or more R^9 or R^{14}; or Y is aryl or heteroaryl, wherein the aryl or heteroaryl is optionally substituted by one or more of R^8; and wherein Y can form a ring with any part of X or R^5, wherein the ring optionally contains a carbonyl group; with the proviso that when Y is $C(O)NR^{10}R^{12}$ or $NR^{10}R^{12}$, R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8;

R^9 is selected from H, halogen, C_{1-5} alkyl, C_{2-5} alkenyl, C_{2-5} alkynyl, C_{3-5} cycloalkyl, C_{1-5} alkyl-OR^8, C_{1-5} alkyl-SR^8, C_{1-5} alkyl-NR^8R^{11}, C_{1-5} alkyl-$C(O)OR^8$, C_{1-5} alkyl-$C(O)NR^8R^{11}$, C_{1-5} alkyl-$C(O)R^{10}$, CN, $C(O)R^8$, $C(O)NR^8R^{11}$, $C(O)OR^8$, $NR^8C(O)NR^8R^{11}$, $OC(O)NR^8R^{11}$, $SO_2NR^8R^{11}$, $NR^8SO_2R^8$, OR^8, NR^8R^{11}, and $S(O)_nR^8$ wherein n is 0, 1 or 2;

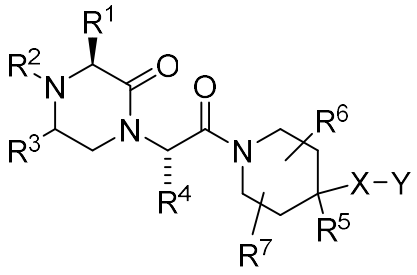
R^{10} and R^{12} are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, C_{1-3} alkanediyl-O-C_{1-3} alkanediyl-O-C_{1-3} alkanediyl, C_{1-3} alkyl-aryl, and C_{1-3} alkyl-heteroaryl, wherein the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, alkanediyl, aryl, or heteroaryl is optionally substituted by halogen, OR^8, or NR^8R^{11};

R^{13} is C_{1-5} alkyl substituted by a bicyclic ring optionally containing at least one heteroatom and a carbonyl group;

R^{14} is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; and

each R^{15} is independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, OR^8, and C_{1-3} alkyl-OR^8.

2. The compound of claim 1, wherein the compound is of formula (I)



(I)

or a pharmaceutically acceptable salt, hydrate, solvate or stereoisomer thereof, wherein:

R^1 is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl;

R^2 is selected from H, $C(O)R^{14}$, $C(O)NR^{15}R^{15}$, $C(O)OR^{15}$, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, C_{1-5} alkyl-OR^8, C_{1-3} alkanediyl-O-C_{1-3} alkanediyl-O-C_{1-3} alkanediyl, C_{1-5} alkyl-$NHCOR^{13}$, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; with the proviso that when R^2 is $C(O)NR^{15}R^{15}$, both R^{15} can form a ring wherein the ring contains the N of $NR^{15}R^{15}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8;

R^3 and R^7 are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl, wherein the alkyl, alkenyl, alkynyl, cycloalkyl, or cycloalkenyl is optionally substituted by halogen, OR^8, or NR^8R^{11}; or R^3 and R^7 are each independently C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl;

R^4 is selected from C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl;

R^5 is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, OR^8, C_{1-3} alkyl-OR^8, and SR^8; and wherein R^5 can form a ring with any part of X or Y, wherein the ring optionally contains a carbonyl group;

R^6 is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl, wherein the alkyl, alkenyl, alkynyl, cycloalkyl, or cycloalkenyl is optionally substituted by halogen, OR^8, or NR^8R^{11}; or R^6 is C_{1-3} alkyl substituted by $C(O)NR^8R^{11}$; or R^6 is C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; or R^6 is imidazolidinone;

R^8 and R^{11} are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl;

X is selected from a bond, C_{1-7} alkanediyl, C_{2-7} alkenediyl, C_{2-7} alkynediyl, C_{3-6} cycloalkanediyl, C_{4-6} cycloalkenediyl, -O-, C_{1-3} alkanediyl-O-, -O-C_{1-7} alkanediyl, C_{1-3} alkanediyl-O-C_{1-7} alkanediyl, C_{1-7} heteroalkanediyl, and -S-C_{1-7} alkanediyl; and wherein X can form a ring with any part of R^5 or Y, wherein the ring optionally contains a carbonyl group;

Y is selected from H, $C(O)NR^{10}R^{12}$, $C(O)OR^{10}$, $R^{10}NC(O)NR^{10}R^{12}$, $OC(O)R^{10}$, $OC(O)NR^{10}R^{12}$, $S(O)_nR^8$ wherein n is 0, 1 or 2, $SO_2NR^{10}R^{12}$, $NR^{10}SO_2R^{10}$, $NR^{10}R^{12}$, $HNCOR^8$, CN, C_{3-7}-cycloalkyl optionally containing a heteroatom in the ring selected from O and N, wherein if the heteroatom is N it is optionally substituted by R^8, S-aryl, O-aryl, S-heteroaryl, and O-heteroaryl, wherein the S-aryl, O-aryl, S-heteroaryl, or O-heteroaryl is optionally substituted by one or more R^9 or R^{14}; or Y is aryl or heteroaryl, wherein the aryl or heteroaryl is optionally substituted by one or more of R^8; and wherein Y can form a ring with any part of X or R^5, wherein the ring optionally contains a carbonyl group; with the proviso that when Y is $C(O)NR^{10}R^{12}$ or $NR^{10}R^{12}$, R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8;

R^9 is selected from H, halogen, C_{1-5} alkyl, C_{2-5} alkenyl, C_{2-5} alkynyl, C_{3-5} cycloalkyl, C_{1-5} alkyl-OR^8, C_{1-5} alkyl-SR^8, C_{1-5} alkyl-NR^8R^{11}, C_{1-5} alkyl-$C(O)OR^8$, C_{1-5} alkyl-$C(O)NR^8R^{11}$, C_{1-5} alkyl-$C(O)R^{10}$, CN, $C(O)R^8$, $C(O)NR^8R^{11}$, $C(O)OR^8$, $NR^8C(O)NR^8R^{11}$, $OC(O)NR^8R^{11}$, $SO_2NR^8R^{11}$, $NR^8SO_2R^8$, OR^8, NR^8R^{11}, and $S(O)_nR^8$ wherein n is 0, 1 or 2;

R^{10} and R^{12} are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, C_{1-3} alkanediyl-O-C_{1-3} alkanediyl-O-C_{1-3} alkanediyl, C_{1-3} alkyl-aryl, and C_{1-3} alkyl-heteroaryl, wherein the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, alkanediyl, aryl, or heteroaryl is optionally substituted by halogen, OR^8, or NR^8R^{11};

R^{13} is C_{1-5} alkyl substituted by a bicyclic ring optionally containing at least one heteroatom and a carbonyl group;

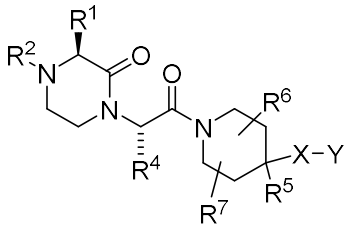
R^{14} is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; and

each R^{15} is independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, OR^8, and C_{1-3} alkyl-OR^8.

3. The compound of claim 1, wherein (1) R^1 is selected from C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; (2) R^2 is selected from H, C(O)R^{14}, C(O)OR^{15}, C_{1-7} alkyl, C_{3-7} cycloalkyl, C_{1-3} alkanediyl-O-C_{1-3} alkanediyl-O-C_{1-3} alkanediyl, C_{1-5} alkyl-OR^8, C_{1-5} alkyl-$NHCOR^{13}$, and C_{1-3} alkyl substituted by aryl, wherein the aryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; (3) R^3 and R^7 are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl; and/or (4) R^4 is selected from C_{1-7} alkyl, C_{3-7} cycloalkyl, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl.

4. The compound of claim 1, wherein (1) R^1 is selected from C_{3-7} alkyl, C_{3-7} cycloalkyl, and C_{1-3} alkyl substituted by aryl or heteroaryl; (2) R^2 is selected from H and C(O)R^{14}, wherein R^{14} is C_{1-7} alkyl; or R^2 is C_{1-7} alkyl, C_{3-7} cycloalkyl, C_{1-5} alkyl-OR^8, or C_{1-5} alkyl-$NHCOR^{13}$, wherein R^{13} is pentylamino-5-oxopentyl-7-thia-2.4-diazabicyclo[3.3.0]octan-3-one; or R^2 is C_{1-3} alkyl substituted by aryl, wherein the aryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; (3) R^3 and R^7 are H; and/or (4) R^4 is selected from C_{3-7} alkyl, C_{3-7} cycloalkyl, and C_{1-3} alkyl substituted by aryl or heteroaryl.

5. The compound of claim 1, wherein the compound is of any one of Formulae (IIa), (IIb), (IIc), (IIIa), (IIIb), (IIIc), (IIId), (IVa), (IVb), (IVc), or (IVd):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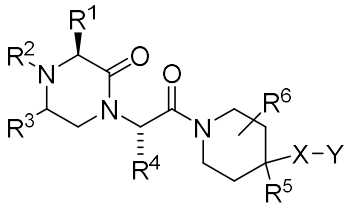
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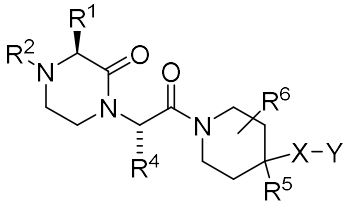
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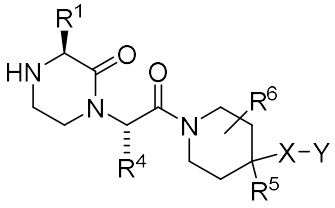
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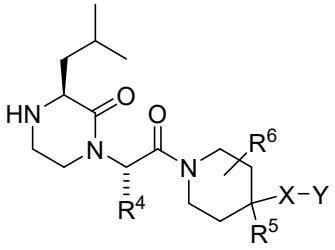
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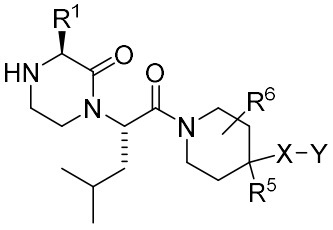
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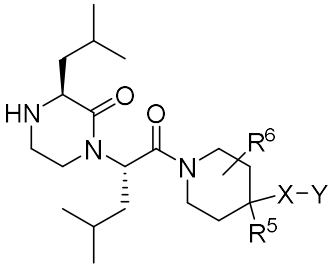
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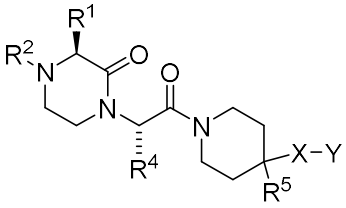
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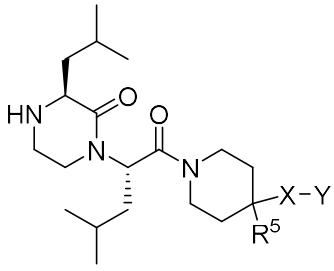
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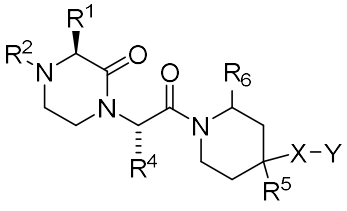
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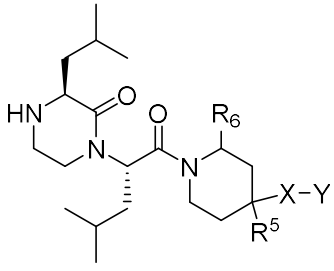

(IVd);

or a pharmaceutically acceptable salt, hydrate, solvate or stereoisomer thereof.

6. The compound of claim 1, wherein (1) R^5 is selected from H, C_{1-7} alkyl, OR^8, and SR^8; and wherein C_{1-7} alkyl, OR^8, or SR^8 of R^5 can form a ring with any part of X or Y, wherein the ring optionally contains a carbonyl group and/or (2) R^6 is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{3-7} cycloalkyl, and C_{4-7} cycloalkenyl; or R^6 is imidazolidinone.

7. The compound of claim 1, wherein (1) R^8 and R^{11} are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, and C_{3-7} cycloalkyl; (2) R^9 is selected from H, C_{1-5} alkyl, halogen, C_{1-5} alkyl-NR^8R^{11}, C_{1-5} alkyl-$C(O)OR^8$, C_{1-5} alkyl-$C(O)NR^8R^{11}$, CN, $C(O)R^8$, $C(O)NR^8R^{11}$, $C(O)OR^8$, and OR^8; (3) R^{10} and R^{12} are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, C_{1-3} alkanediyl-O-C_{1-3} alkanediyl-O-C_{1-3} alkanediyl, C_{1-3} alkyl-aryl, and C_{1-3} alkyl-heteroaryl, wherein the alkyl, alkenyl, cycloalkyl, cycloalkenyl, alkanediyl, aryl, or heteroaryl is optionally substituted by halogen or OR^8; (4) R^{14} is selected from C_{1-7} alkyl, C_{3-7} cycloalkyl, and C_{1-3} alkyl substituted by aryl or heteroaryl, wherein the aryl or the heteroaryl is optionally substituted by halogen, C_{1-4} alkyl, or C_{3-5} cycloalkyl; and/or (5) each R^{15} is independently selected from H, C_{1-7} alkyl, and C_{3-7} cycloalkyl.

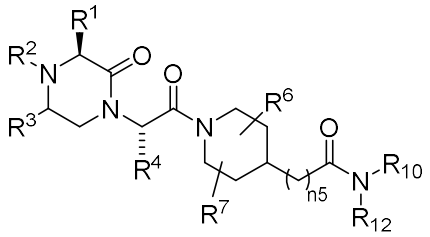
8. The compound of claim 1, wherein (1) R^{14} is C_{1-7} alkyl and/or (2) each R^{15} is independently selected from H and C_{1-7} alkyl.

9. The compound of claim 1, wherein (1) X is selected from a bond, C_{1-7} alkanediyl, -O-, C_{1-3} alkanediyl-O-, -O-C_{1-7} alkanediyl, C_{1-3} alkanediyl-O-C_{1-7} alkanediyl, C_{1-7} heteroalkanediyl, and -S-C_{1-7} alkanediyl; and wherein X can form a ring with any part of R^5 or Y, wherein the ring optionally contains a carbonyl group; (2) X is selected from a bond and C_{1-7} alkanediyl, and wherein C_{1-7} alkanediyl of X can form a ring with any part of Y; or (3) X is selected from a bond, -O-C_{1-7} alkanediyl, -S-C_{1-7} alkanediyl, and C_{1-7} alkanediyl, wherein –O-C_{1-7} alkanediyl, -S-C_{1-7} alkanediyl, or C_{1-7} alkanediyl of X can form a ring with any part of R^5, wherein the ring optionally contains a carbonyl group.

10. The compound of claim 1, wherein (1) Y is selected from H, $C(O)NR^{10}R^{12}$, $C(O)OR^{10}$, $NR^{10}R^{12}$, CN, C_{3-7}-cycloalkyl optionally containing a heteroatom in the ring selected from O and N, wherein if the heteroatom is N the ring is optionally substituted by R^8, S-aryl, O-aryl, S-heteroaryl, and O-heteroaryl wherein the S-aryl, O-aryl, S-heteroaryl, or

O-heteroaryl is optionally substituted by one or more R^9 or R^{14}; or Y is aryl or heteroaryl, wherein the aryl or heteroaryl is optionally substituted by one or more of R^8; and wherein when Y is $C(O)NR^{10}R^{12}$ or $NR^{10}R^{12}$, Y can form a ring with any part of X or R^5, wherein the ring optionally contains a carbonyl group; with the proviso that when Y is $C(O)NR^{10}R^{12}$ or $NR^{10}R^{12}$, R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8; (2) Y is selected from H, $C(O)NR^{10}R^{12}$, $C(O)OR^{10}$, $NR^{10}R^{12}$, CN, C_{3-7}-cycloalkyl optionally containing a heteroatom in the ring selected from O and N, wherein if the heteroatom is N the ring is optionally substituted by R^8, S-aryl, O-aryl, S-heteroaryl, and O-heteroaryl, wherein the S-aryl, O-aryl, S-heteroaryl, or O-heteroaryl is optionally substituted by one or more R^9 or R^{14}; or Y is aryl or heteroaryl wherein the aryl or heteroaryl is optionally substituted by one or more of R^8; and wherein Y can form a ring with any part of X or R^5, wherein the ring optionally contains a carbonyl group; with the proviso that when Y is $C(O)NR^{10}R^{12}$ or $NR^{10}R^{12}$, R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8; (3) Y is selected from $C(O)NR^{10}R^{12}$, $NR^{10}R^{12}$, C_{3-7}-cycloalkyl optionally containing a heteroatom in the ring selected from O and N, wherein if the heteroatom is N it is optionally substituted by R^8, S-aryl, O-aryl, S-heteroaryl, and O-heteroaryl, wherein the S-aryl, O-aryl, S-heteroaryl, or O-heteroaryl is optionally substituted by one or more R^9 or R^{14}; or Y is heteroaryl wherein the heteroaryl is optionally substituted by one or more of R^8; and wherein Y can form a ring with any part of X or R^5, wherein the ring optionally contains a carbonyl group; with the proviso that when Y is $C(O)NR^{10}R^{12}$ or $NR^{10}R^{12}$, R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8; or (4) Y is selected from $NR^{10}R^{12}$ and C_{3-7}-cycloalkyl optionally containing a heteroatom in the ring selected from O and N, wherein if the heteroatom is N the ring is optionally substituted by R^8; and wherein Y can form a ring with any part of X or R^5; with the proviso that when Y is $NR^{10}R^{12}$, R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8.

11. The compound of claim 1, wherein the compound is of any one of Formulae (Va), (Vb), (Vc), (Vd), (VIa), (VIb), (VIc), (VId), (VIIa), (VIIb), (VIIc), (VIId), (VIIe), or (VIIf):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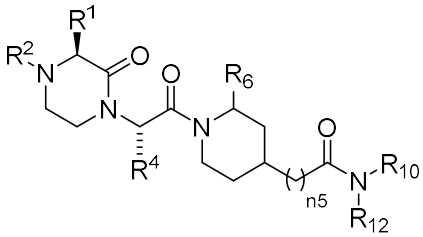
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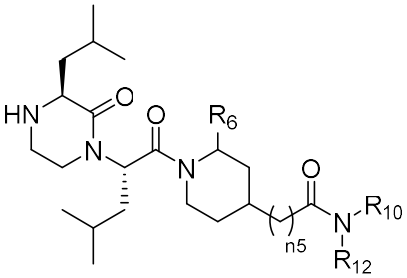
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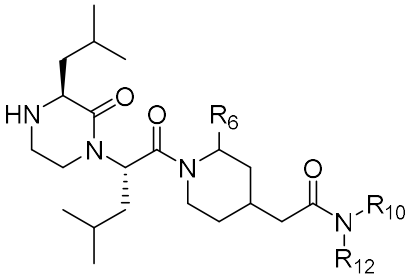
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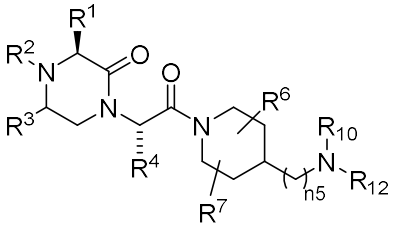
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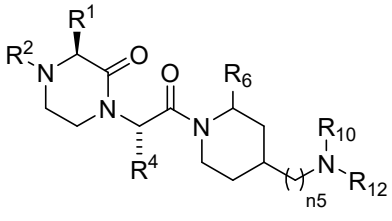
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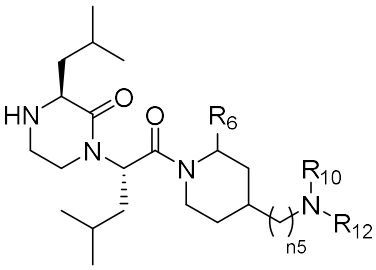
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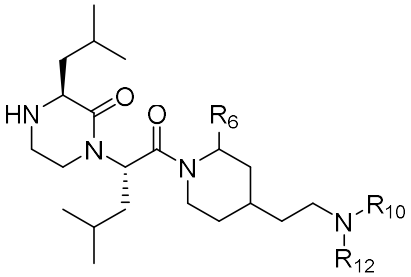
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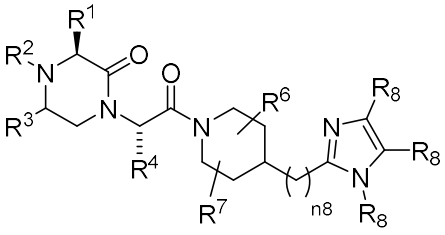
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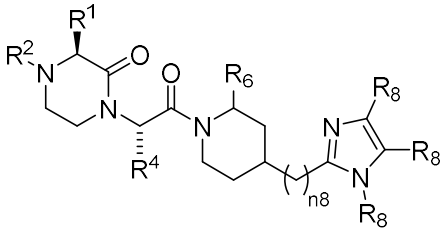
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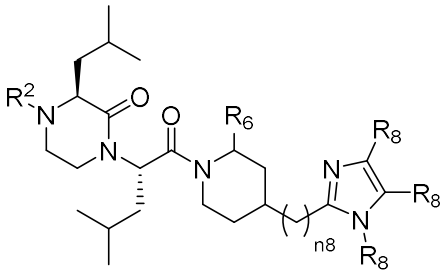
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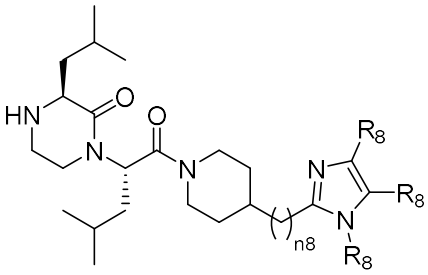
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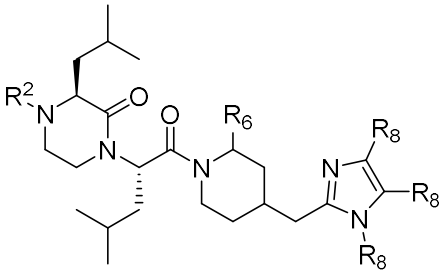
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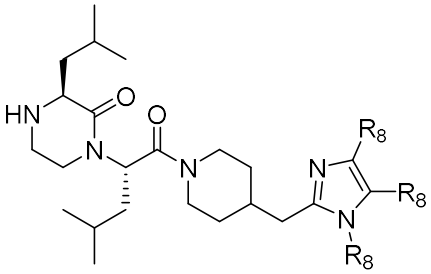

(VIIf);

or a pharmaceutically acceptable salt, hydrate, solvate or stereoisomer thereof, wherein n5 is 0, 1, 2, 3, 4, 5, 6, or 7 and n8 is 0, 1, 2, 3, 4, 5, 6, or 7.

12. The compound of claim 1, wherein (1a) R^5 is selected from H and C_{1-7} alkyl; wherein C_{1-7} alkyl of R^5 can form a ring with any part of Y; (1b) R^5 is selected from C_{1-7} alkyl, OR^8, and SR^8; wherein C_{1-7} alkyl, OR^8, or SR^8 of R^5 can form a ring with any part of X; or (1c) R^5 is OR^8, wherein R^8 of OR^8 is C_{1-7} alkyl, and wherein OR^8 of R^5 can form a ring with any part of X;

wherein (2a) X is selected from a bond and C_{1-7} alkanediyl, wherein C_{1-7} alkanediyl of X can form a ring with any part of Y; (2b) X is selected from –O-C_{1-7} alkanediyl, -S-C_{1-7} alkanediyl, and C_{1-7} alkanediyl, and wherein –O-C_{1-7} alkanediyl, -S-C_{1-7} alkanediyl, or C_{1-7} alkanediyl of X can form a ring with any part of R^5; or (2c) X is –O-C_{1-7} alkanediyl, wherein –O-C_{1-7} alkanediyl of X can form a ring with any part of R^5;

wherein (3a) Y is selected from $NR^{10}R^{12}$ and C_{3-7}-cycloalkyl optionally containing a heteroatom in the ring wherein the heteroatom is N and is optionally substituted by R^8, wherein R^8 is C_{1-7} alkyl; and wherein Y can form a ring with any part of C_{1-7} alkanediyl of X or with any part of C_{1-7} alkyl of R^5; with the proviso that when Y is $NR^{10}R^{12}$, R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8; (3b) Y is $NR^{10}R^{12}$ wherein R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8; or (3c) Y

is $NR^{10}R^{12}$ wherein R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and four or five carbon atoms; and
wherein R^{10} and R^{12} are each independently selected from H, C_{1-7} alkyl, C_{3-7} cycloalkyl, and C_{1-3} alkyl-aryl, wherein the alkyl, cycloalkyl, or aryl is optionally substituted by halogen.

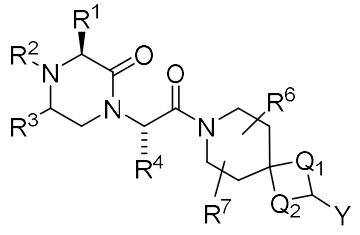
13. The compound of claim 1, wherein (1) Y is aryl or heteroaryl, wherein the aryl or heteroaryl is optionally substituted by one or more of R^8; or Y is S-heteroaryl, wherein the S-heteroaryl is optionally substituted by one or more R^{14}; (2) Y is $C(O)NR^{10}R^{12}$; wherein R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8; (3) Y is selected from S-aryl, O-aryl, S-heteroaryl, and O-heteroaryl, wherein the S-aryl, O-aryl, S-heteroaryl, or O-heteroaryl is optionally substituted by one or more R^9 or R^{14}; (4) Y is $C(O)OR^{10}$; (5) Y is H; or (6) Y is CN.

14. The compound of claim 1,
wherein R^5 is selected from H and C_{1-7} alkyl;
X is selected from a bond and C_{1-7} alkanediyl;
Y is (1) heteroaryl, wherein the heteroaryl is optionally substituted by one or more of R^8; or Y is S-heteroaryl, wherein the S-heteroaryl is optionally substituted by one or more R^{14}; (2) $C(O)NR^{10}R^{12}$; wherein R^{10} and R^{12} can form a ring wherein the ring contains the N of $NR^{10}R^{12}$ and optionally one further heteroatom selected from O and N, wherein if the one further heteroatom is N, the ring is optionally substituted by R^8; wherein R^{10} and R^{12} are each independently selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{3-7} cycloalkyl, and C_{1-3} alkyl-aryl; (3) Y is selected from O-aryl and O-heteroaryl, wherein the O-aryl or O-heteroaryl is optionally substituted by one or more R^9; wherein R^9 is selected from H, C_{1-5} alkyl, halogen, C_{1-5} alkyl-NR^8R^{11}, C_{1-5} alkyl-$C(O)OR^8$, C_{1-5} alkyl-$C(O)NR^8R^{11}$, CN, $C(O)R^8$, $C(O)NR^8R^{11}$, $C(O)OR^8$, and OR^8; or (4) Y is $C(O)OR^{10}$; wherein R^{10} is selected from H, C_{1-7} alkyl, C_{2-7} alkenyl, C_{3-7} cycloalkyl, C_{4-7} cycloalkenyl, C_{1-3} alkanediyl-O-C_{1-3} alkanediyl-O-C_{1-3} alkanediyl, C_{1-3} alkyl-aryl, and C_{1-3} alkyl-heteroaryl, wherein the alkyl, alkenyl, cycloalkyl, cycloalkenyl, alkanediyl, aryl, or heteroaryl is optionally substituted by OR^8.

15. The compound of claim 1, wherein
R^5 is C_{1-7} alkyl or H;
X is a bond or C_{1-7} alkanediyl; and

Y is H or CN.

16. The compound of claim 1, wherein the compound is of any one of Formulae (VIIIa), (VIIIb), (VIIIc), (VIIId), (VIIIe), (VIIIf), (VIIIg), (VIIIh), (VIIIi), (VIIIj), (VIIIk), (VIIIl) (IXa), (IXb), (IXc), or (IXd):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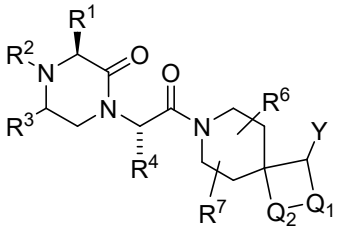
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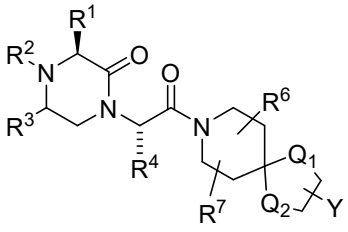
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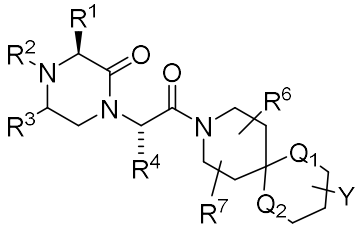
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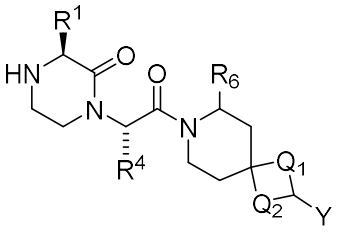
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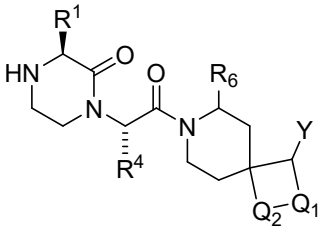
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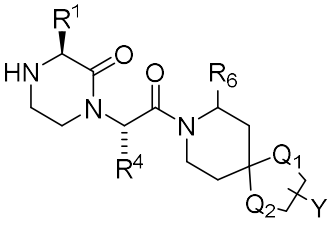
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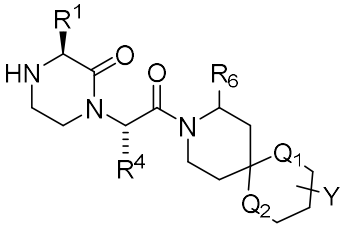
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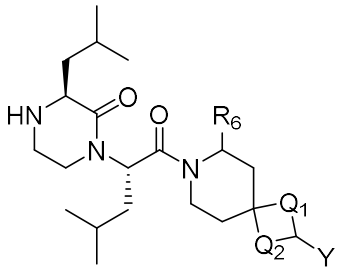
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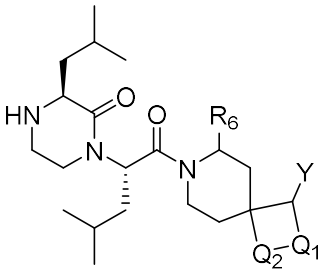
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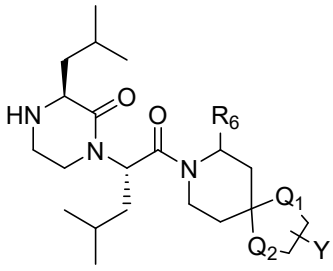
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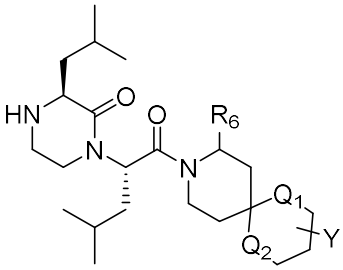
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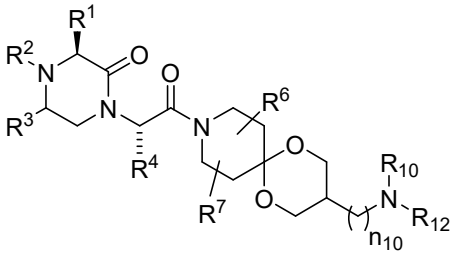
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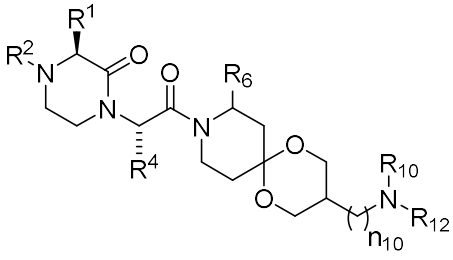
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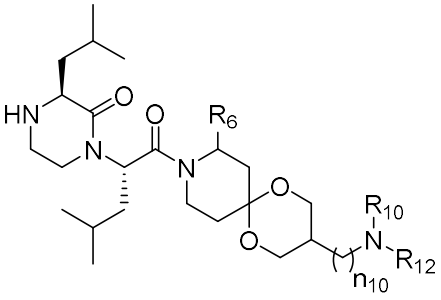
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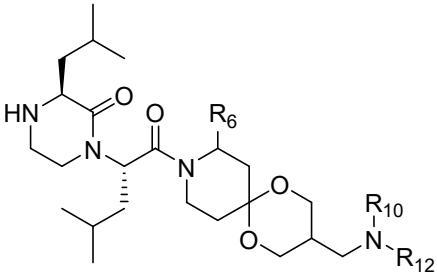
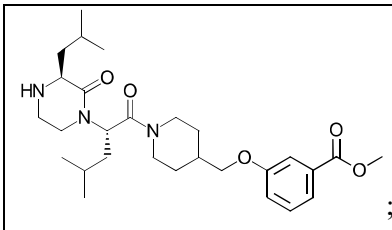
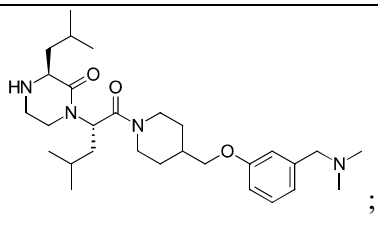
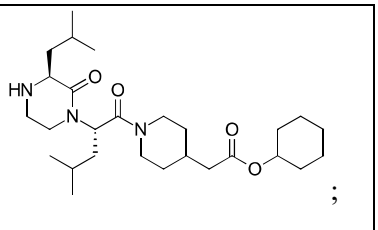
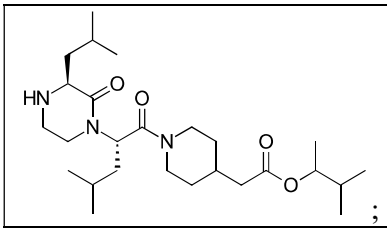
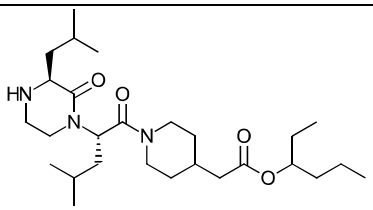
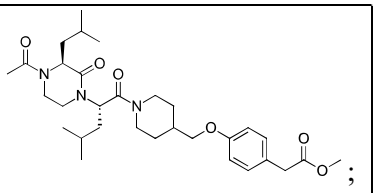
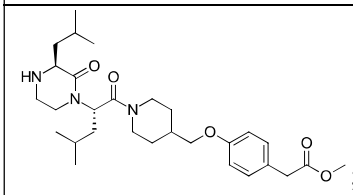
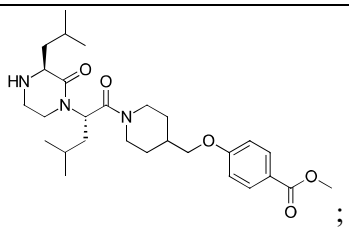
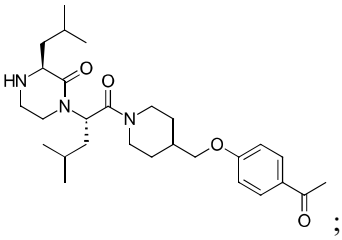
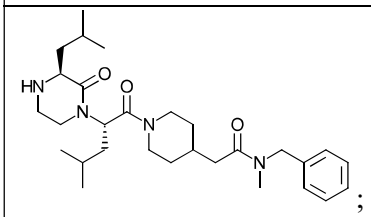
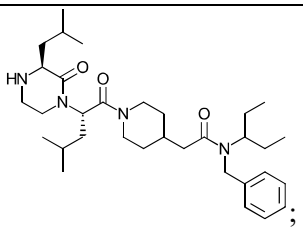
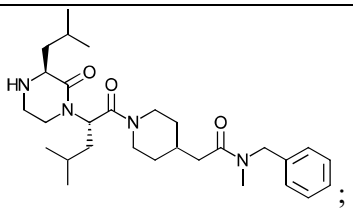
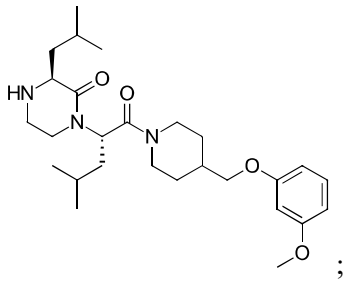
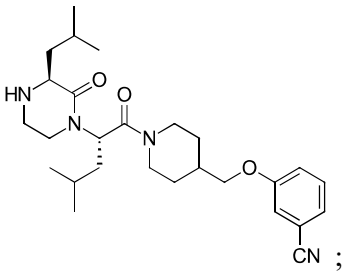
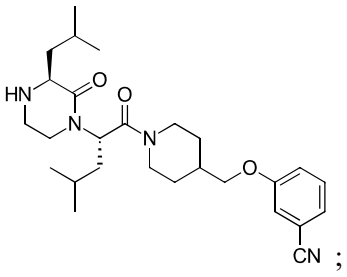
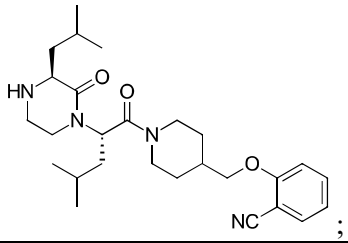
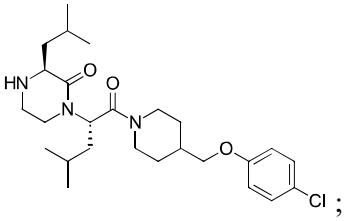
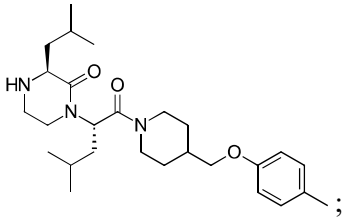
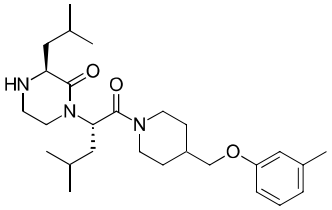
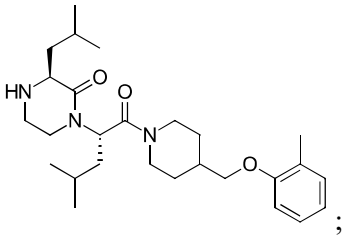
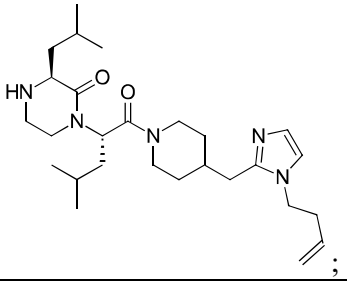
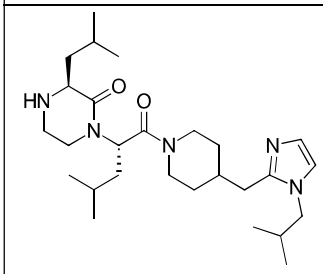
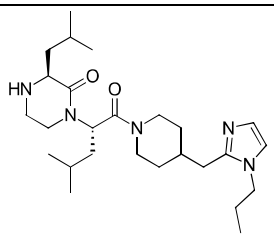
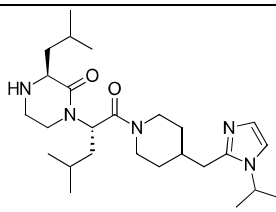
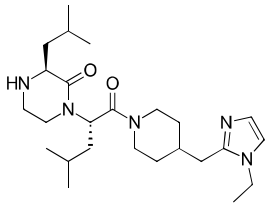
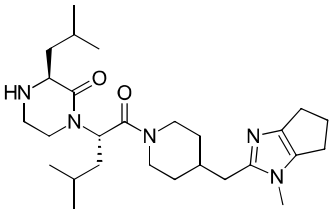
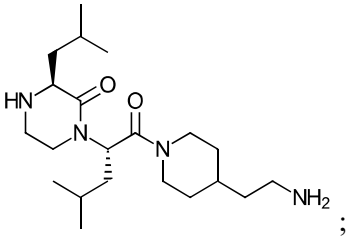
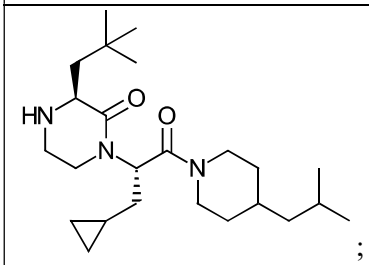
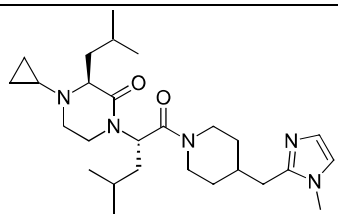
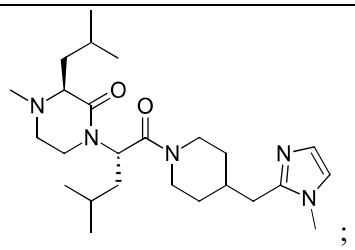
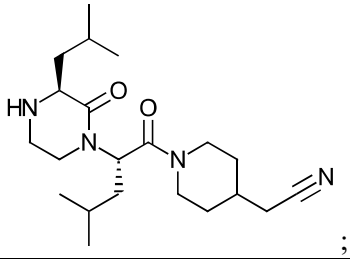
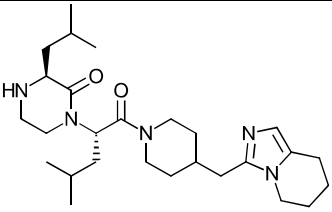
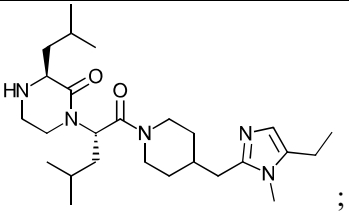
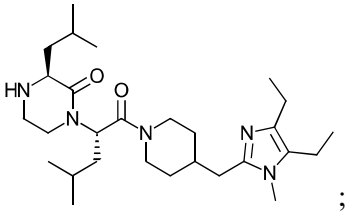
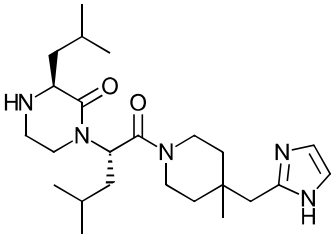
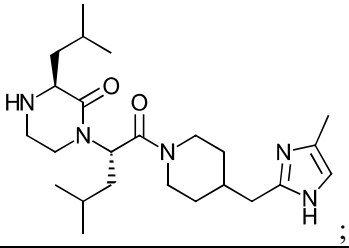
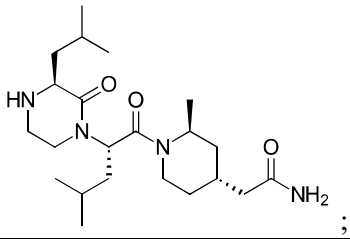
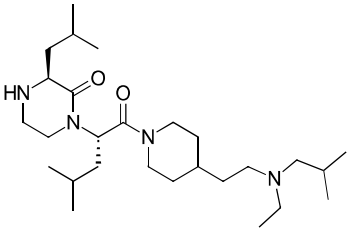
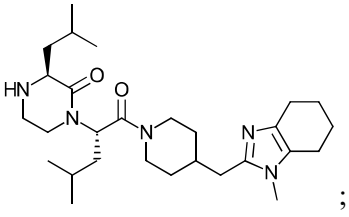

(IXd);

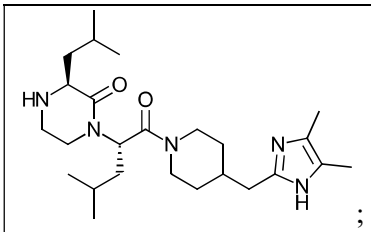
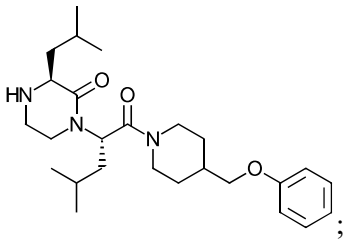
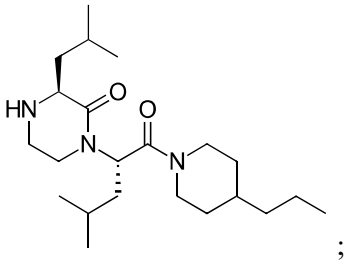
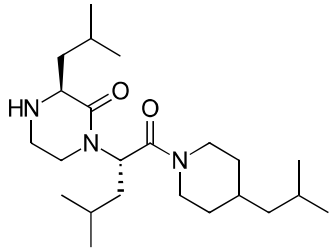
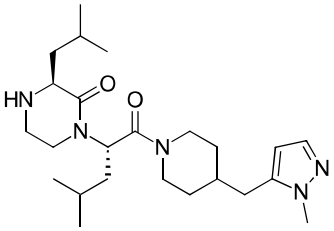
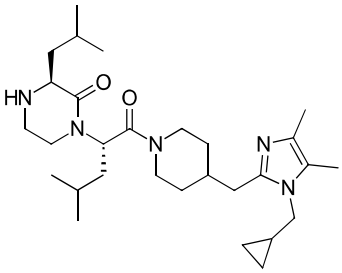
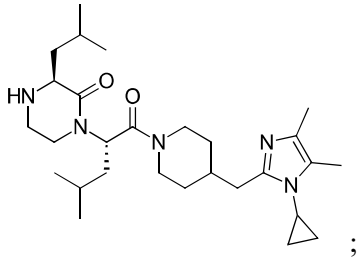
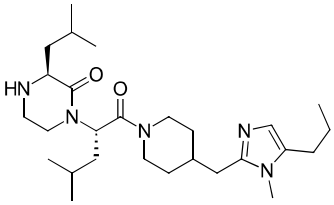
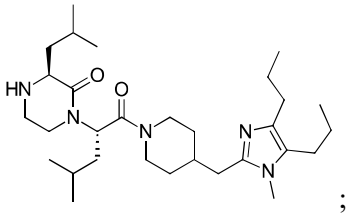
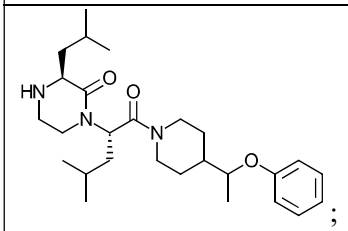
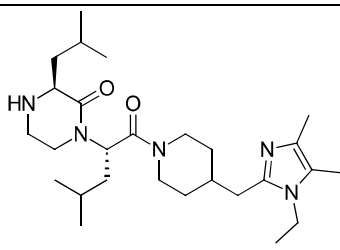
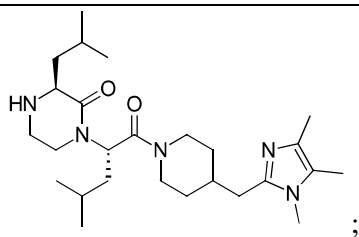
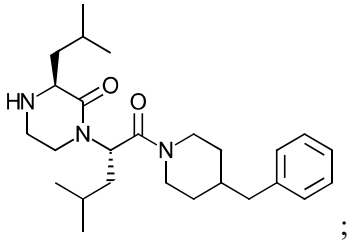
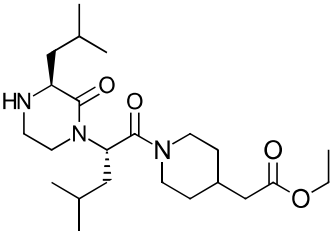
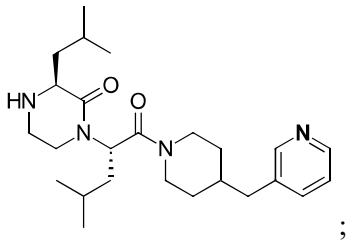
or a pharmaceutically acceptable salt, hydrate, solvate, or stereoisomer thereof, wherein Q_1 and Q_2 are each independently O, S, NR^8, or CR^8 and n_{10} is 0, 1, 2, 3, 4, 5, 6, or 7.

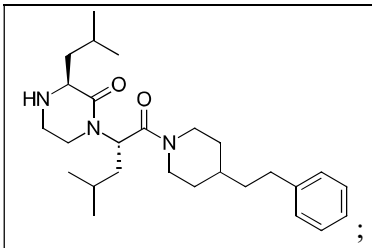
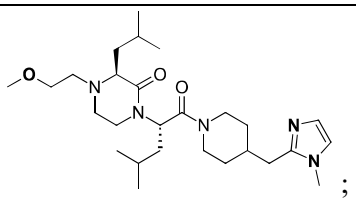
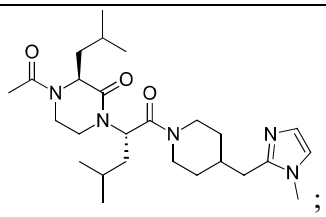
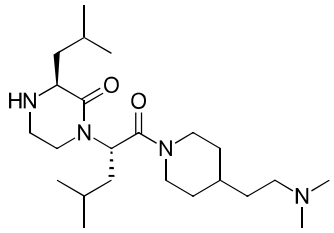
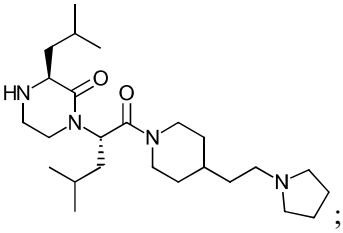
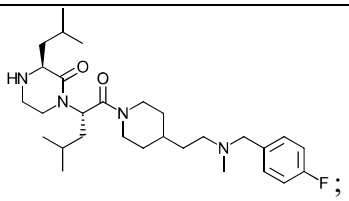
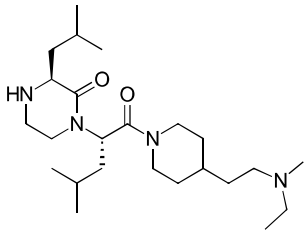
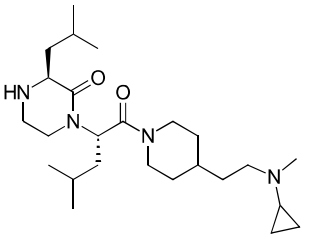
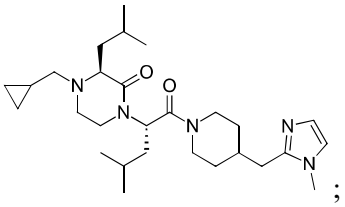
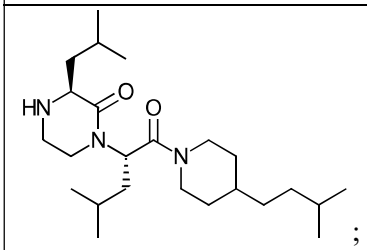
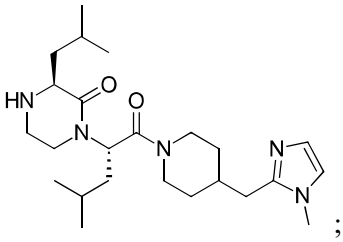
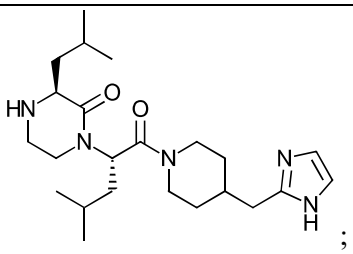
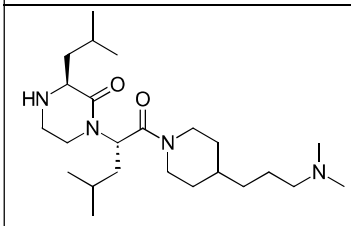
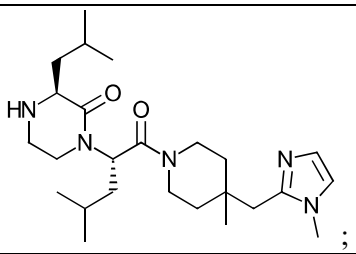
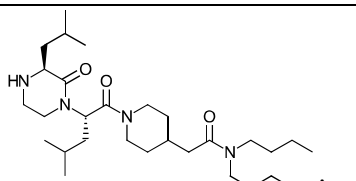
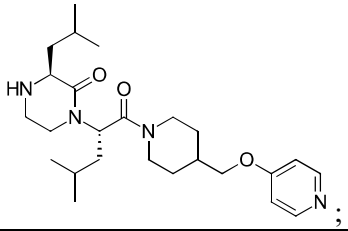
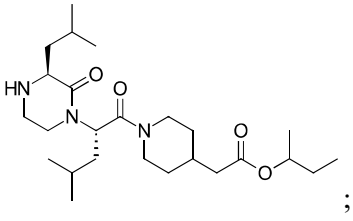
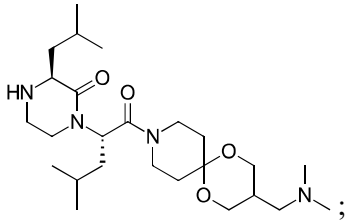
17. A compound selected from the group consisting of:

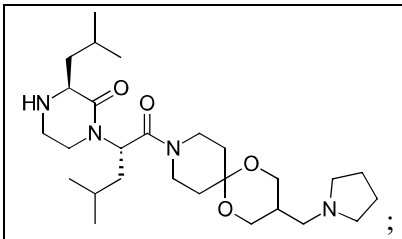
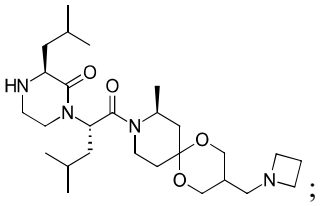
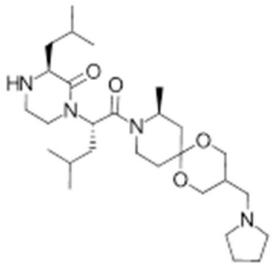
 ;	 ;	 ;

 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 CN ;	 CN ;
 NC ;	 Cl ;	 ;
 ;	 ;	 ;

 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;

 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;

 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;
 ;	 ;	 ;

 ;	 ;	 and .

18. A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable diluent, excipient or carrier.

19. A compound of any one of claims 1 to 17 for use in therapy, wherein a therapeutically effective amount of the compound or a pharmaceutically effective salt, hydrate, solvate, or stereoisomer thereof is to be administered to a subject.

20. Use of a compound of any one of claims 1 to 17 in the manufacture of a medicament for the treatment of cancer in a subject, wherein a therapeutically effective amount of the compound or a pharmaceutically effective salt, hydrate, solvate, or stereoisomer thereof is to be administered to the subject.

21. Use of a compound of any one of claims 1 to 17 in the manufacture of a pharmaceutical composition for the treatment of cancer in a subject, a therapeutically effective amount of the compound or a pharmaceutically effective salt, hydrate, solvate, or stereoisomer thereof is to be administered to the subject.