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C07D 401/04 (2006.01)
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(73)	Proprietor	Epizyme, Inc., 400 Technology Square, 4th Floor, Cambridge, MA 02139, USA
(72)	Inventor	CHESWORTH, Richard, 584 Strawberry Hill Road, Concord, MA 01742, USA MITCHELL, Lorna, Helen, 1 Nichols Place, Cambridge, MA 02138, USA SHAPIRO, Gideon, 5507 Nw 80th Avenue, Gainesville, FL 32563, USA SWINGER, Keren Kalai, 9 Chase Avenue, Lexington, Massachusetts 02421, USA
(74)	Agent or Attorney	PLOUGMANN VINGTOFT, Postboks 1003 Sentrum, 0104 OSLO, Norge

(54) Title **ARGININE METHYLTRANSFERASE INHIBITORS AND USES THEREOF**

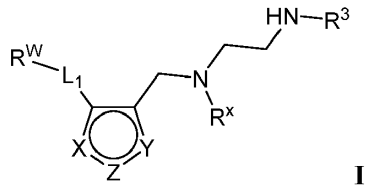
(56) References Cited: WO-A1-2010/094609

WO-A1-2008/104077

WO-A2-2008/008286
DATABASE REGISTRY [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 3 November 2011 (2011-11-03), "1,2-Ethanediamine, N1-[(5-chloro-1,3-dimethyl-1H-pyrazol-4-yl)methyl]-N1,N2-dimethyl-", XP055127173, Database accession no. 1340581-60-3
DATABASE REGISTRY [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 8 November 2011 (2011-11-08), "1,2-Ethanediamine, N1,N2-dimethyl-N1-[(1,3,5-trimethyl-1H-pyr azol-4- yl)methyl]-", XP055127174, Database accession no. 1342545-59-8
C. J. ZHENG ET AL: "Therapeutic Targets: Progress of Their Exploration and Investigation of Their Characteristics", PHARMACOLOGICAL REVIEWS, vol. 58, no. 2, 1 June 2006 (2006-06-01), pages 259-279, XP055164746, ISSN: 0031-6997, DOI: 10.1124/pr.58.2.4

Patentkrav

1. En forbindelse med formel (**I**):



I

eller et farmasøytisk akseptabelt salt derav,

hvor

X er N, Z er NR^4, og Y er CR^5; eller

X er NR^4, Z er N, og Y er CR^5; eller

X er CR^5, Z er NR^4, og Y er N; eller

X er CR^5, Z er N, og Y er NR^4;

R^x er metyl, etyl, isopropyl, hydroksyetyl eller metoksyetyl;

L_1 er en binding eller en usubstituert C_{1-6} mettet eller umettet hydrokarbon kjede;

R^W er eventuelt substituert karbosyklyl, eventuelt substituert heterosyklyl, eventuelt substituert aryl, eller eventuelt substituert heteroaryl; forutsatt at, hvis L_1 er en binding, R^W er ikke eventuelt substituert aryl, eller eventuelt substituert heteroaryl;

R^3 er hydrogen eller metyl;

R^4 er hydrogen eller metyl;

R^5 er hydrogen eller metyl;

hvor, og med mindre annet er spesifisert,

heterosyklyl eller heterosyklisk refererer til en radikal av en 3-14-leddet ikke-aromatisk ringsystem som har ringkarbonatomer og 1-4 ringheteroatomer, hvor hver heteroatom er uavhengig valgt fra nitrogen, oksygen, og svovel;

karbosyklyl eller karbosyklisk refererer til en radikal av en ikke-aromatisk syklisk hydrokarbongruppe som har fra 3 to 14 ringkarbonatomer og zero heteroatomer i det ikke-aromatiske ringsystemet;

aryl refererer til en radikal av et monosyklisk eller polysyklisk aromatisk ringsystem som har 6-14 ringkarbonatomer og zero heteroatomer tilveiebrakt i det aromatiske ringsystemet; og

heteroaryl refererer til en radikal av en 5-10-leddet monosyklisk eller bisyklisk 4n+2 aromatisk ringsystem som har ringkarbonatomer og 1-4 ringheteroatomer tilveiebrakt i det aromatiske ringsystemet, hvor hver heteroatom er uavhengig valgt fra nitrogen, oksygen og svovel;

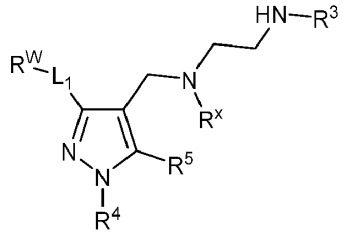
alkyl refererer til en radikal av en rett-kjede eller forgrenet mettet hydrokarbongruppe som har fra 1 to 20 karbonatomer;

alkenyl refererer til en radikal av en rett-kjede eller forgrenet hydrokarbongruppe som har fra 2 to 20 karbonatomer og én eller flere karbon-karbon dobbeltbindinger; og
alkynyl refererer til en radikal av en rett-kjede eller forgrenet hydrokarbongruppe som har fra 2 to 20 karbonatomer og én eller flere karbon-karbon trippelbindinger;
eventuelle substituenter på en karbonatom er halogen, -CN, -NO_2, -N_3, -SO_2H, -SO_3H, -OH, -OR^{aa}, -$ON(R^{bb})_2$, -$N(R^{bb})_2$, -$N(R^{bb})_3^+X^-$, -$N(OR^{cc})R^{bb}$, -SH, -SR^{aa}, -SSR^{cc}, -$C(=O)R^{aa}$, -CO_2H, -CHO, -$C(OR^{cc})_2$, -CO_2R^{aa}, -$OC(=O)R^{aa}$, -OCO_2R^{aa}, -$C(=O)N(R^{bb})_2$, -$OC(=O)N(R^{bb})_2$, -$NR^{bb}C(=O)R^{aa}$, -$NR^{bb}CO_2R^{aa}$, -$NR^{bb}C(=O)N(R^{bb})_2$, -$C(=NR^{bb})R^{aa}$, -$C(=NR^{bb})OR^{aa}$, -$OC(=NR^{bb})R^{aa}$, -$OC(=NR^{bb})OR^{aa}$, -$C(=NR^{bb})N(R^{bb})_2$, -$OC(=NR^{bb})N(R^{bb})_2$, -$NR^{bb}C(=NR^{bb})N(R^{bb})_2$, -$C(=O)NR^{bb}SO_2R^{aa}$, -$NR^{bb}SO_2R^{aa}$, -$SO_2N(R^{bb})_2$, -$SO_2R^{aa}$, -$SO_2OR^{aa}$, -$OSO_2R^{aa}$, -$S(=O)R^{aa}$, -$OS(=O)R^{aa}$, -$Si(R^{aa})_3$, -$OSi(R^{aa})_3$ -$C(=S)N(R^{bb})_2$, -$C(=O)SR^{aa}$, -$C(=S)SR^{aa}$, -$SC(=S)SR^{aa}$, -$SC(=O)SR^{aa}$, -$OC(=O)SR^{aa}$, -$SC(=O)OR^{aa}$, -$SC(=O)R^{aa}$, -$P(=O)_2R^{aa}$, -$OP(=O)_2R^{aa}$, -$P(=O)(R^{aa})_2$, -$OP(=O)(R^{aa})_2$, -$OP(=O)(OR^{cc})_2$, -$P(=O)_2N(R^{bb})_2$, -$OP(=O)_2N(R^{bb})_2$, -$P(=O)(NR^{bb})_2$, -$OP(=O)(NR^{bb})_2$, -$NR^{bb}P(=O)(OR^{cc})_2$, -$NR^{bb}P(=O)(NR^{bb})_2$, -$P(R^{cc})_2$, -$P(R^{cc})_3$, -$OP(R^{cc})_2$, -$OP(R^{cc})_3$, -$B(R^{aa})_2$, -$B(OR^{cc})_2$,-$BR^{aa}(OR^{cc})$, C_{1-10} alkyl, C_{1-10} perhaloalkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, C_{3-10} karbosyklyl, 3-14-leddet heterosyklyl, C_{6-14} aryl, og 5-14-leddet heteroaryl, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{dd} grupper;
eller to geminale hydrogener på en karbonatom er erstattet med gruppen =O, =S, $=NN(R^{bb})_2$, $=NNR^{bb}C(=O)R^{aa}$, $=NNR^{bb}C(=O)OR^{aa}$, $=NNR^{bb}S(=O)_2R^{aa}$, $=NR^{bb}$, eller $=NOR^{cc}$;
hver forekomst av R^{aa} er, uavhengig, valgt fra C_{1-10} alkyl, C_{1-10} perhaloalkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, C_{3-10} karbosyklyl, 3-14-leddet heterosyklyl, C_{6-14} aryl, og 5-14-leddet heteroaryl, eller to R^{aa} grupper er tilsammen to form en 3-14-leddet heterosyklyl eller 5-14-leddet heteroarylring, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{dd} grupper;
hver forekomst av R^{bb} er, uavhengig, valgt fra hydrogen, -OH, -OR^{aa}, -$N(R^{cc})_2$, -CN, -$C(=O)R^{aa}$, -$C(=O)N(R^{cc})_2$, -CO_2R^{aa}, -SO_2R^{aa}, -$C(=NR^{cc})OR^{aa}$, -$C(=NR^{cc})N(R^{cc})_2$, -$SO_2N(R^{cc})_2$, -SO_2R^{cc}, -SO_2OR^{cc}, -SOR^{aa}, -$C(=S)N(R^{cc})_2$, -$C(=O)SR^{cc}$, -$C(=S)SR^{cc}$, -$P(=O)_2R^{aa}$, -$P(=O)(R^{aa})_2$, -$P(=O)_2N(R^{cc})_2$, -$P(=O)(NR^{cc})_2$, C_{1-10} alkyl, C_{1-10} perhaloalkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, C_{3-10} karbosyklyl, 3-14-leddet heterosyklyl, C_{6-14} aryl, og 5-14-leddet heteroaryl, eller to R^{bb} grupper er tilsammen to form en 3-14-leddet heterosyklyl eller 5-14-leddet heteroaryl ring, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{dd} grupper;

hver forekomst av R^{cc} er, uavhengig, valgt fra hydrogen, C_{1-10} alkyl, C_{1-10} perhaloalkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, C_{3-10} karbosyklyl, 3-14-leddet heterosyklyl, C_{6-14} aryl, og 5-14-leddet heteroaryl, eller to R^{cc} grupper er tilsammen to form en 3-14-leddet heterosyklyl eller 5-14-leddet heteroarylring, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{dd} grupper;
hver forekomst av R^{dd} er, uavhengig, valgt fra halogen, -CN, $-NO_2$, $-N_3$, $-SO_2H$, $-SO_3H$, -OH, $-OR^{ee}$, $-ON(R^{ff})_2$, $-N(R^{ff})_2$, $-N(R^{ff})_3^+X^-$, $-N(OR^{ee})R^{ff}$, -SH, $-SR^{ee}$, $-SSR^{ee}$, $-C(=O)R^{ee}$, $-CO_2H$, $-CO_2R^{ee}$, $-OC(=O)R^{ee}$, $-OCO_2R^{ee}$, $-C(=O)N(R^{ff})_2$, $-OC(=O)N(R^{ff})_2$, $-NR^{ff}C(=O)R^{ee}$, $-NR^{ff}CO_2R^{ee}$, $-NR^{ff}C(=O)N(R^{ff})_2$, $-C(=NR^{ff})OR^{ee}$, $-OC(=NR^{ff})R^{ee}$, $-OC(=NR^{ff})OR^{ee}$, $-C(=NR^{ff})N(R^{ff})_2$, $-OC(=NR^{ff})N(R^{ff})_2$, $-NR^{ff}C(=NR^{ff})N(R^{ff})_2$,$-NR^{ff}SO_2R^{ee}$, $-SO_2N(R^{ff})_2$, $-SO_2R^{ee}$, $-SO_2OR^{ee}$, $-OSO_2R^{ee}$, $-S(=O)R^{ee}$, $-Si(R^{ee})_3$, $-OSi(R^{ee})_3$, $-C(=S)N(R^{ff})_2$, $-C(=O)SR^{ee}$, $-C(=S)SR^{ee}$, $-SC(=S)SR^{ee}$, $-P(=O)_2R^{ee}$, $-P(=O)(R^{ee})2$, $-OP(=O)(R^{ee})2$, $-OP(=O)(OR^{ee})2$, C_{1-6} alkyl, C_{1-6} perhaloalkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-10} karbosyklyl, 3-10-leddet heterosyklyl, C_{6-10} aryl, 5-10-leddet heteroaryl, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{gg} grupper, eller to geminale R^{dd} substituenter kan være tilsammen to form =O eller =S;
hver forekomst av R^{ee} er, uavhengig, valgt fra C_{1-6} alkyl, C_{1-6} perhaloalkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-10} karbosyklyl, C_{6-10} aryl, 3-10-leddet heterosyklyl, og 3-10-leddet heteroaryl, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{gg} grupper;
hver forekomst av R^{ff} er, uavhengig, valgt fra hydrogen, C_{1-6} alkyl, C_{1-6} perhaloalkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-10} karbosyklyl, 3-10-leddet heterosyklyl, C_{6-10} aryl og 5-10-leddet heteroaryl, eller to R^{ff} grupper er tilsammen to form en 3-14-leddet heterosyklyl eller 5-14-leddet heteroarylring, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{gg} grupper; og
hver forekomst av R^{gg} er, uavhengig, halogen, -CN, $-NO_2$, $-N_3$, $-SO_2H$, $-SO_3H$, -OH, $-OC_{1-6}$ alkyl, $-ON(C_{1-6}alkyl)_2$, $-N(C_{1-6}$ alkyl$)_2$, $-N(C_{1-6}$ alkyl$)_3^+X^-$, $-NH(C_{1-6}$ alkyl$)_2^+X^-$, $-NH_2(C_{1-6}$ alkyl$)^+X^-$, $-NH_3^+X^-$, $-N(OC_{1-6}$ alkyl$)(C_{1-6}$ alkyl$)$, $-N(OH)(C_{1-6}$ alkyl$)$, -NH(OH), -SH, $-SC_{1-6}$ alkyl, $-SS(C_{1-6}$ alkyl$)$, $-C(=O)(C_{1-6}$ alkyl$)$, $-CO_2H$, $-CO_2(C_{1-6}$ alkyl$)$, $-OC(=O)(C_{1-6}$ alkyl$)$, $-OCO_2(C_{1-6}$ alkyl$)$, $-C(=O)NH_2$, $-C(=O)N(C_{1-6}$ alkyl$)_2$, $-OC(=O)NH(C_{1-6}$ alkyl$)$, $-NHC(=O)(C_{1-6}$ alkyl$)$, $-N(C_{1-6}$ alkyl$)C(=O)(C_{1-6}$ alkyl$)$, $-NHCO_2(C_{1-6}$ alkyl$)$, $-NHC(=O)N(C_{1-6}$ alkyl$)_2$, $-NHC(=O)NH(C_{1-6}$ alkyl$)$, $-NHC(=O)NH_2$, $-C(=NH)O(C_{1-6}$ alkyl$)$,$-OC(=NH)(C_{1-6}$ alkyl$)$, $-OC(=NH)OC_{1-6}$ alkyl, $-C(=NH)N(C_{1-6}$ alkyl$)_2$, $-C(=NH)NH(C_{1-6}$ alkyl$)$, $-C(=NH)NH_2$, $-OC(=NH)N(C_{1-6}$ alkyl$)_2$, $-OC(NH)NH(C_{1-6}$ alkyl$)$, $-OC(NH)NH_2$, $-NHC(NH)N(C_{1-6}$ alkyl$)_2$, $-NHC(=NH)NH_2$, $-NHSO_2(C_{1-6}$ alkyl$)$, $-SO_2N(C_{1-6}$ alkyl$)_2$, $-SO_2NH(C_{1-6}$ alkyl$)$, -

SO_2NH_2,-SO_2C_{1-6} alkyl, - SO_2OC_{1-6} alkyl, -OSO_2C_{1-6} alkyl, -SOC_{1-6} alkyl, -Si(C_{1-6} alkyl)$_3$, -OSi(C_{1-6} alkyl)$_3$ - C(=S)N(C_{1-6} alkyl)$_2$, C(=S)NH(C_{1-6} alkyl), C(=S)NH_2, -C(=O)S(C_{1-6} alkyl), -C(=S)SC_{1-6} alkyl, -SC(=S)SC_{1-6} alkyl, -P(=O)$_2$(C_{1-6} alkyl), -P(=O)(C_{1-6} alkyl)$_2$, -OP(=O)(C_{1-6} alkyl)$_2$, -OP(=O)(OC_{1-6} alkyl)$_2$, C_{1-6} alkyl, C_{1-6} perhaloalkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-10} karbosyklyl, C_{6-10} aryl, 3-10-leddet heterosyklyl, 5-10-leddet heteroaryl; eller to geminale R^{gg} substituenter kan være tilsammen to form =O eller =S; hvor X^- er en motion; og
eventuelle substituenter på en nitrogenatom er hydrogen, -OH, -OR^{aa}, -N(R^{cc})$_2$, -CN, - C(=O)R^{aa}, -C(=O)N(R^{cc})$_2$, -CO_2R^{aa}, -SO_2R^{aa}, -C(=NR^{bb})R^{aa}, -C(=NR^{cc})OR^{aa}, -C(=NR^{cc})N(R^{cc})$_2$, -SO_2N(R^{cc})$_2$, -SO_2R^{cc}, -SO_2OR^{cc}, -SOR^{aa}, -C(=S)N(R^{cc})$_2$, -C(=O)SR^{cc}, -C(=S)SR^{cc}, -P(=O)$_2R^{aa}$, -P(=O)(R^{aa})$_2$, -P(=O)$_2$N(R^{cc})$_2$, -P(=O)(NR^{cc})$_2$, C_{1-10} alkyl, C_{1-10} perhaloalkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, C_{3-10} karbosyklyl, 3-14-leddet heterosyklyl, C_{6-14} aryl, og 5-14-leddet heteroaryl, eller to R^{cc} grupper som er bundet til en nitrogenatom er tilsammen to form en 3-14-leddet heterosyklyl eller 5-14-leddet heteroarylring, hvor hver alkyl, alkenyl, alkynyl, karbosyklyl, heterosyklyl, aryl, og heteroaryl er uavhengig substituert med 0, 1, 2, 3, 4, eller 5 R^{dd} grupper, og hvor R^{aa}, R^{bb}, R^{cc} og R^{dd} er som definert ovenfor.

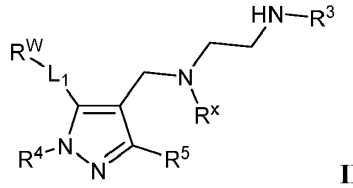
2. En forbindelse ifølge krav 1, hvor forbindelsen er av formel (**II**):



II

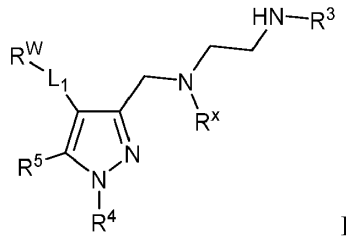
eller et farmasøytisk akseptabelt salt derav.

3. En forbindelse ifølge krav 1, hvor forbindelsen er av formel (**III**):



III

eller et farmasøytisk akseptabelt salt derav; eller
hvor forbindelsen er av formel (**IV**):

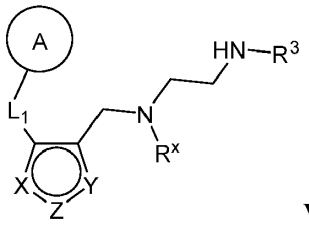


IV

eller et farmasøytisk akseptabelt salt derav.

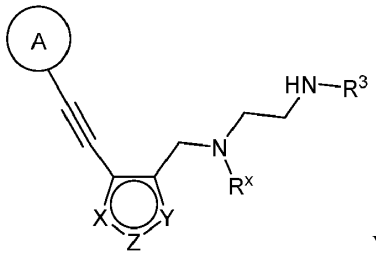
4. En forbindelse ifølge et hvilket som helst av kravene 1-3, hvor -L_1-R^W er eventuelt substituert karbosyklyl; for eksempel, eventuelt substituert sykloheksyl; hvor -L_1-R^W er eventuelt substituert heterosyklyl; for eksempel, eventuelt substituert piperidin; eller hvor L_1 er C_{1-4} alkylen og R^W er eventuelt substituert aryl eller eventuelt substituert heteroaryl.

5. En forbindelse ifølge krav 1, hvor forbindelsen er av formel (**VI**):



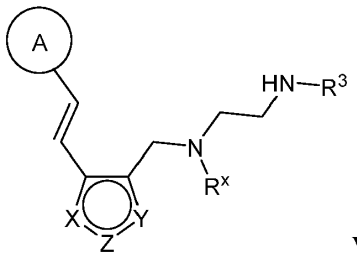
VI

eller et farmasøytisk akseptabelt salt derav;
hvor forbindelsen er av formel (**VI-a**):



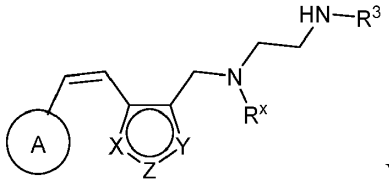
VI-a

eller et farmasøytisk akseptabelt salt derav;
hvor forbindelse er av formel (**VI-b**):



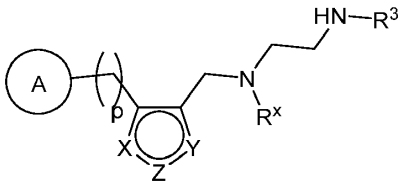
VI-b

eller et farmasøytisk akseptabelt salt derav;
hvor forbindelsen er av formel (**VI-c**):



VI-c

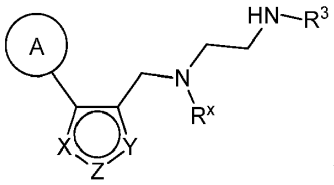
eller et farmasøytisk akseptabelt salt derav; eller
hvor forbindelsen er av formel (**VI-i**):



VI-i

eller et farmasøytisk akseptabelt salt derav, hvor p er 1, 2, 3, 4, 5, eller 6;
hvor ring A er eventuelt substituert karbosyklyl, eventuelt substituert heterosyklyl, eventuelt substituert aryl, eller eventuelt substituert heteroaryl.

6. En forbindelse ifølge krav 1, hvor forbindelsen er av formel (**VI-1**):



VI-1

eller et farmasøytisk akseptabelt salt derav;
hvor ring A er eventuelt substituert karbosyklyl, eller eventuelt substituert heterosyklyl; eventuelt substituert bisyklisk karbosyklyl, eller eventuelt substituert bisyklisk heterosyklyl.

7. En forbindelse ifølge krav 5, hvor ring A er eventuelt substituert fenyl; eventuelt substituert heteroaryl; eventuelt substituert karbosyklyl; eventuelt substituert heterosyklyl; eventuelt substituert bisyklisk karbosyklyl; eller eventuelt substituert bisyklisk heterosyklyl.

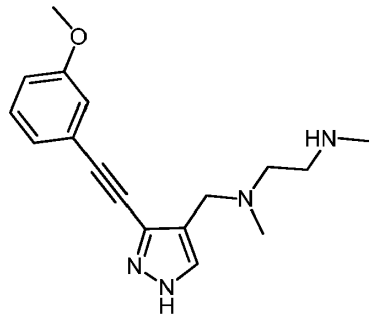
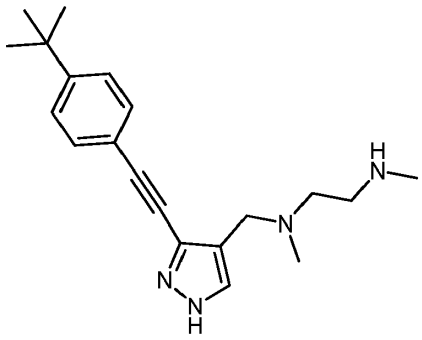
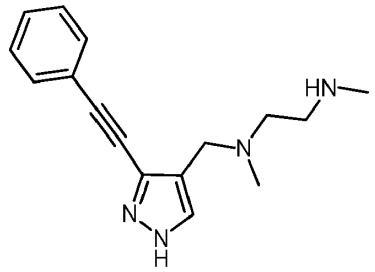
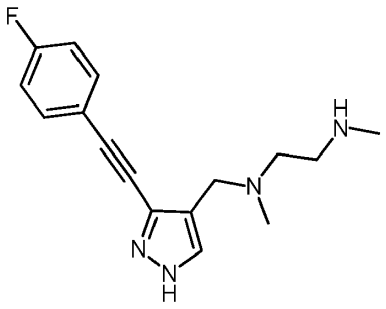
8. En forbindelse ifølge et hvilket som helst av kravene 1-7, hvor R^3 er metyl.

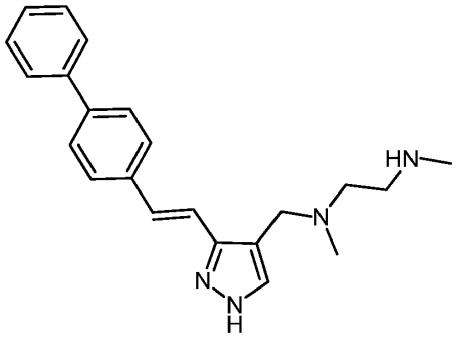
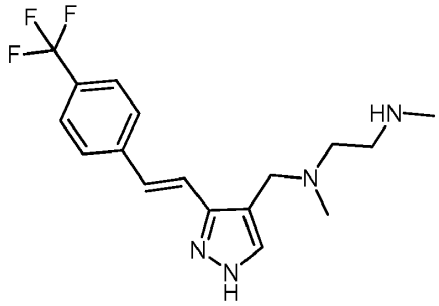
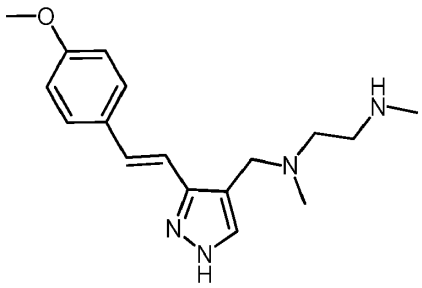
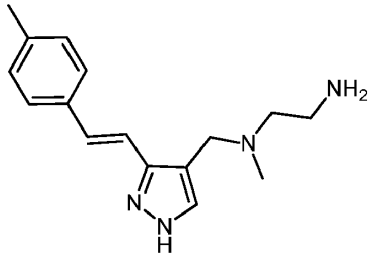
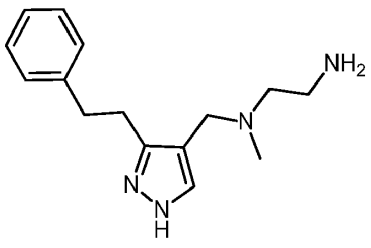
9. En forbindelse ifølge et hvilket som helst av kravene 1-8, hvor R^4 er metyl.

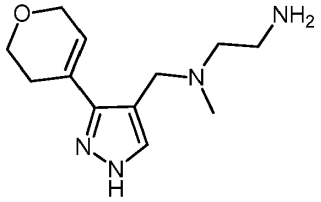
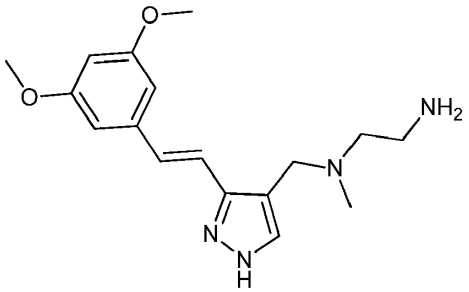
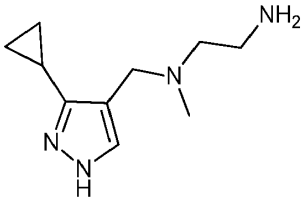
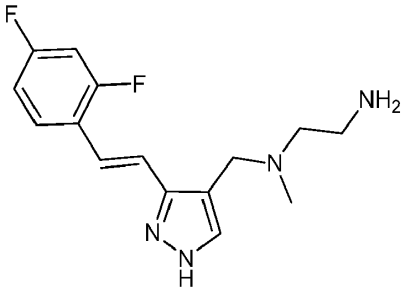
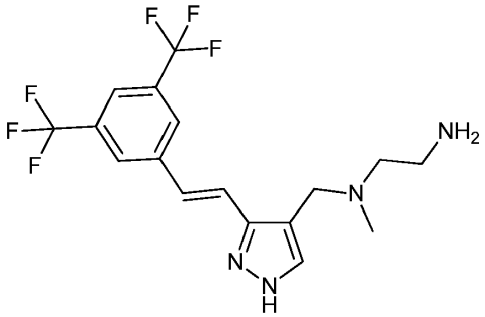
10. En forbindelse ifølge et hvilket som helst av kravene 1-9, hvor R^5 er hydrogen.

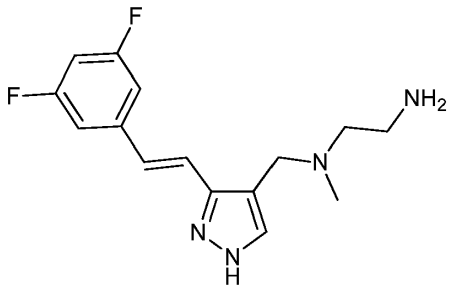
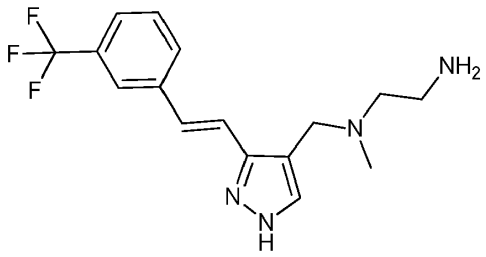
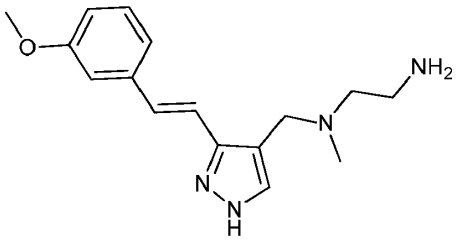
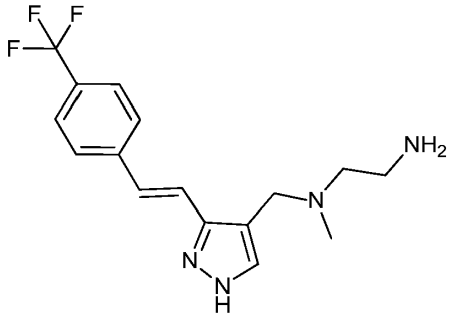
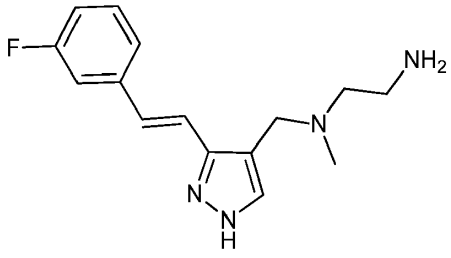
11. En forbindelse ifølge et hvilket som helst av kravene 1-10, hvor R^x er metyl.

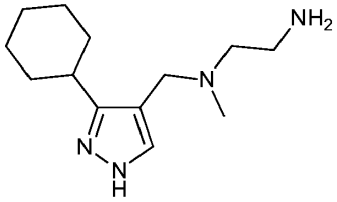
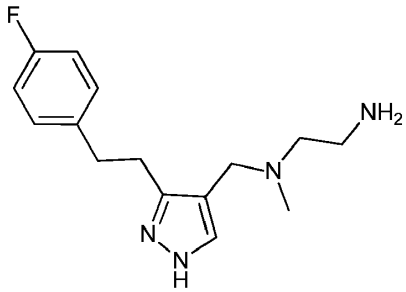
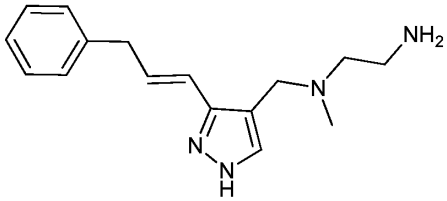
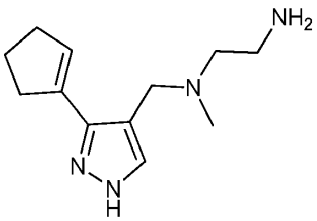
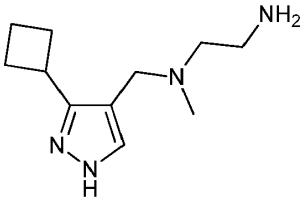
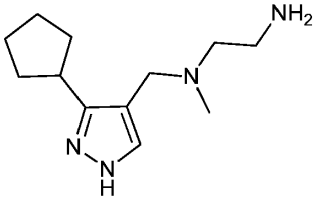
12. En forbindelse ifølge krav 1, hvor forbindelsen er valgt fra gruppen som består av de følgende forbindelsene eller et farmasøytisk akseptabelt salt derav:

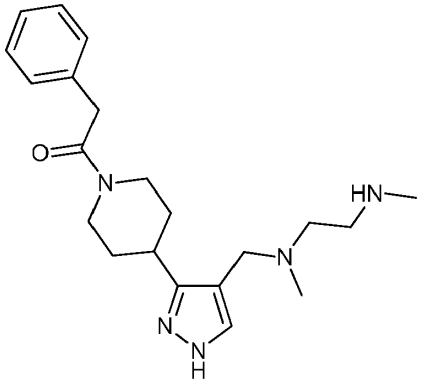
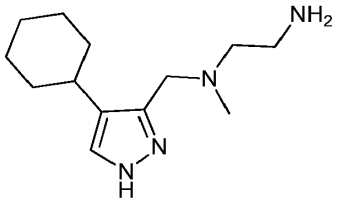
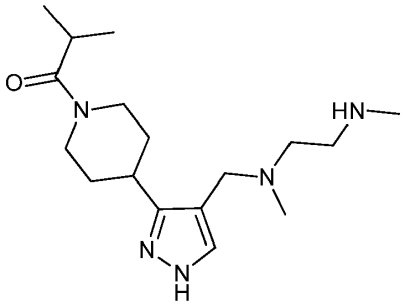
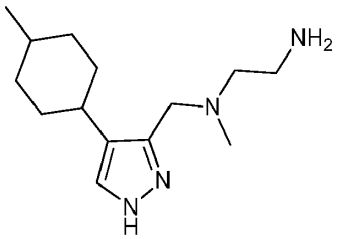
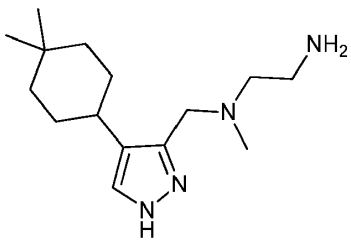
1	
2	
3	
4	

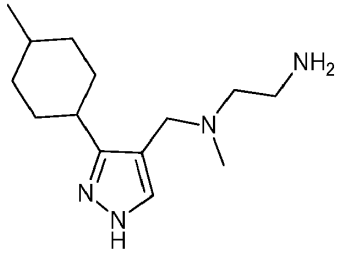
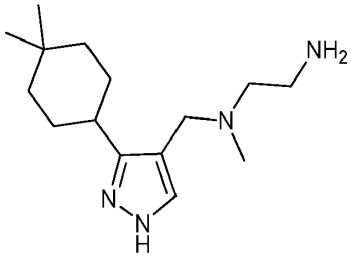
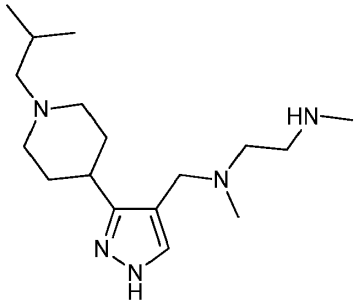
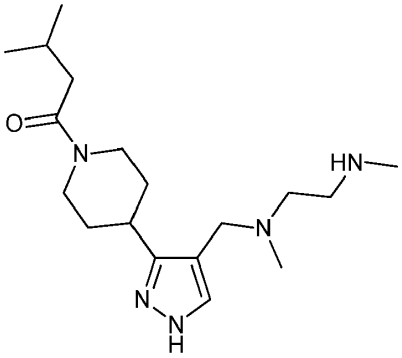
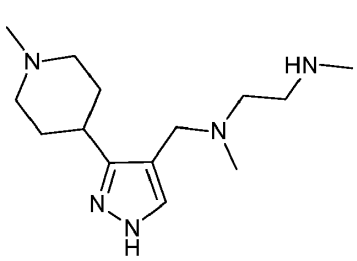
5	
6	
7	
8	
9	

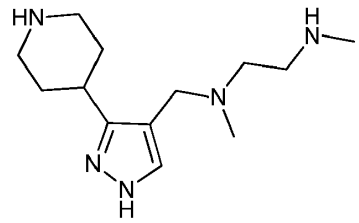
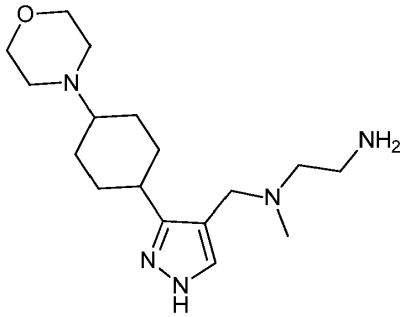
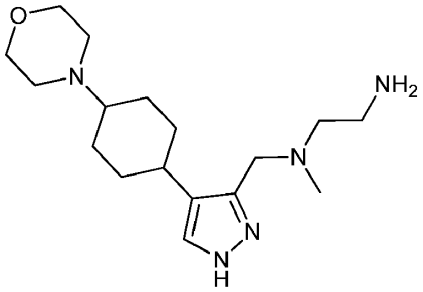
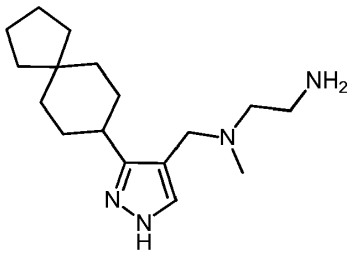
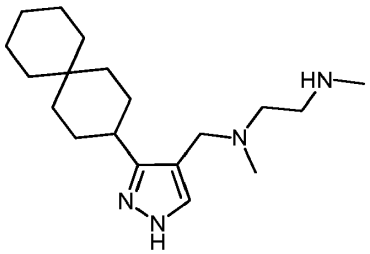
10	
11	
12	
13	
14	

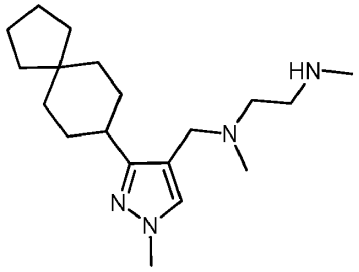
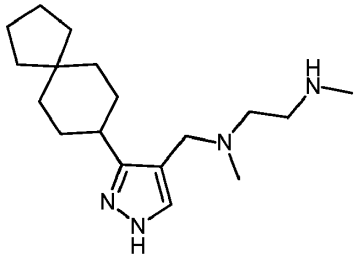
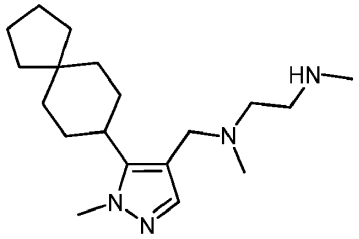
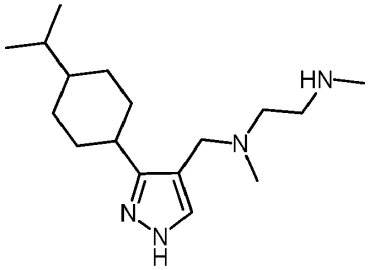
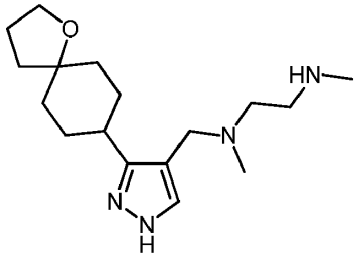
15	
16	
17	
18	
20	

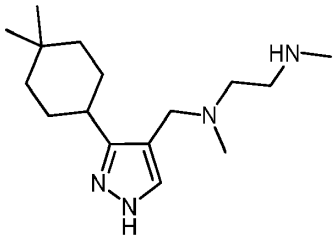
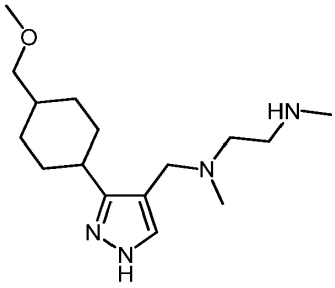
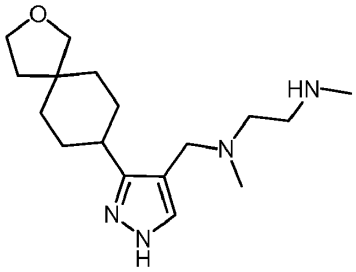
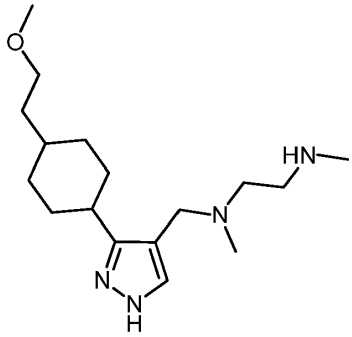
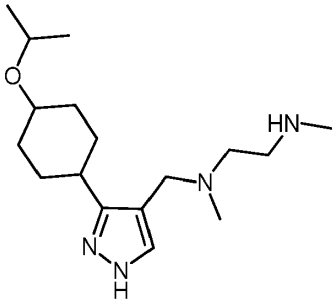
22	
23	
24	
25	
26	
31	

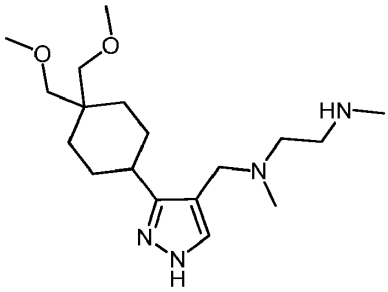
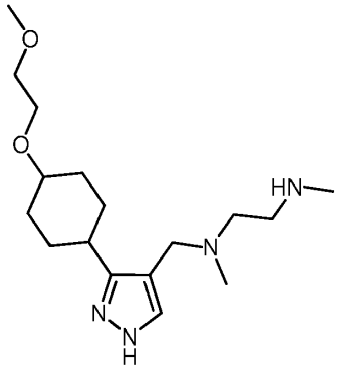
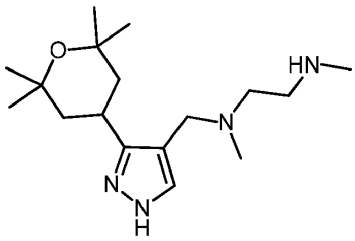
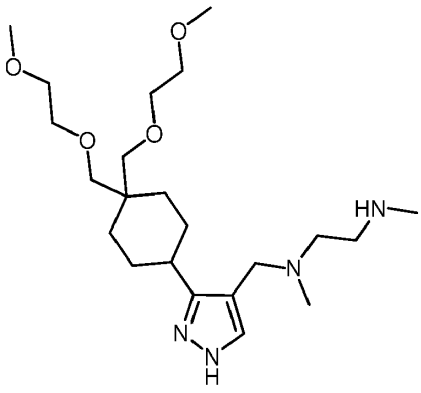
32	
33	
34	
35	
36	

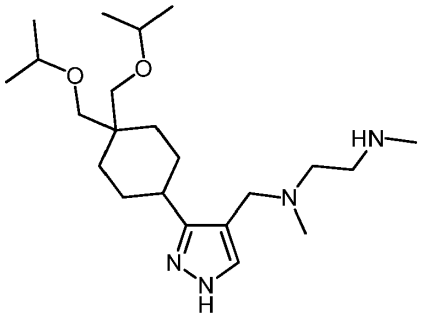
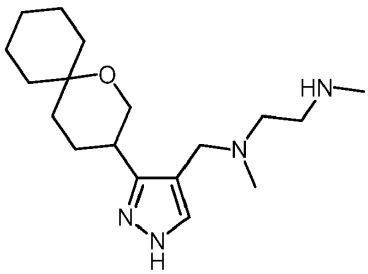
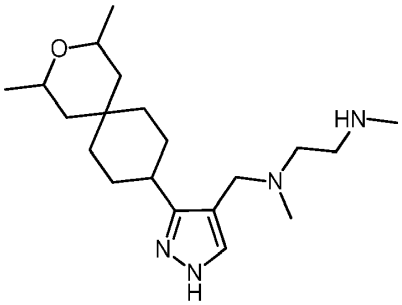
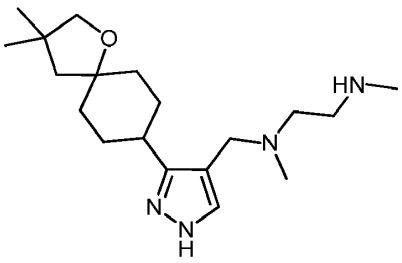
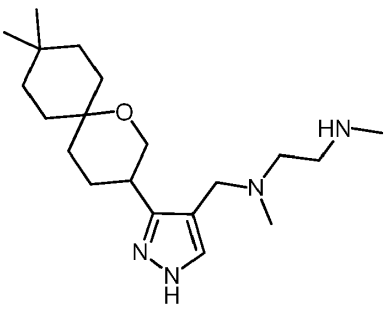
37	
38	
39	
40	
41	

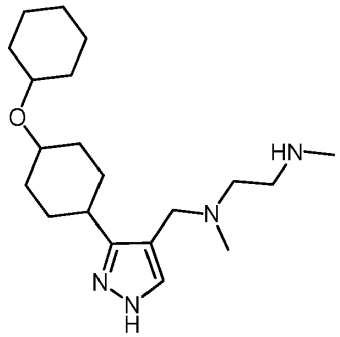
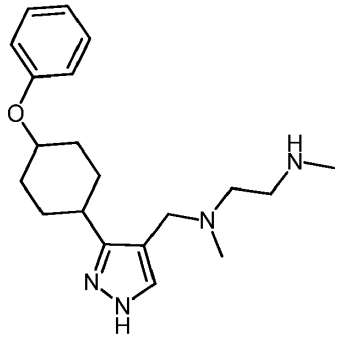
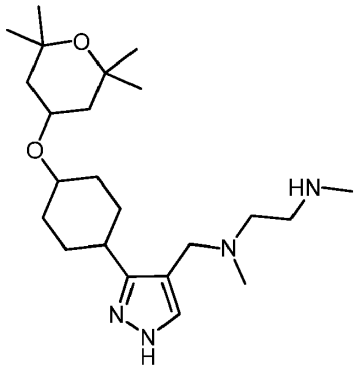
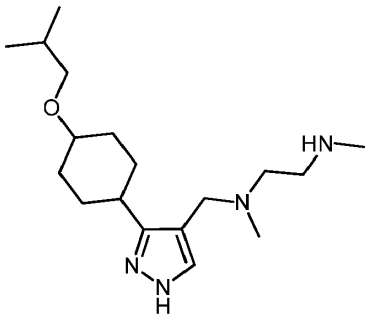
42	
43	
44	
45	
46	

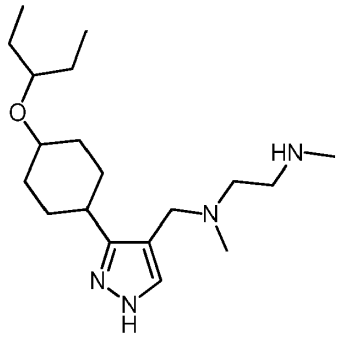
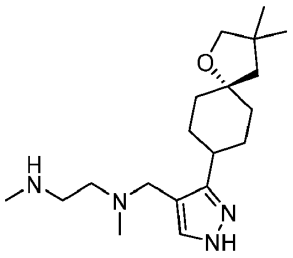
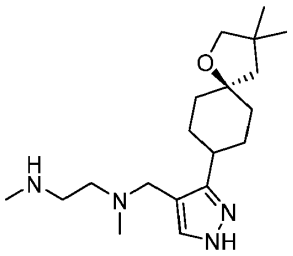
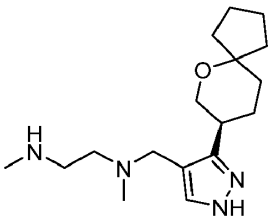
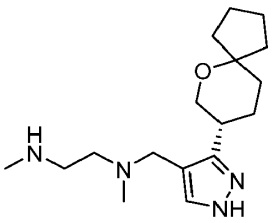
47	
48	
49	
50	
51	

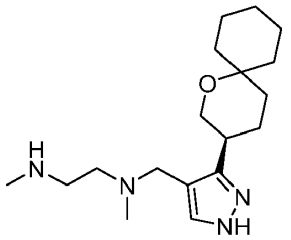
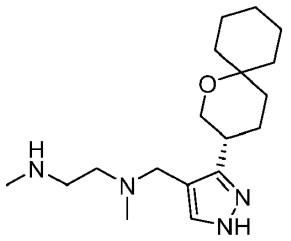
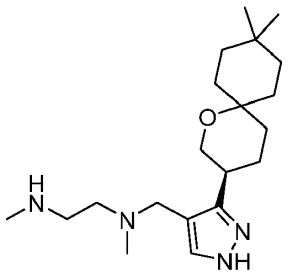
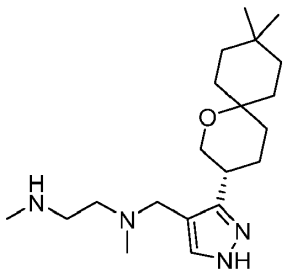
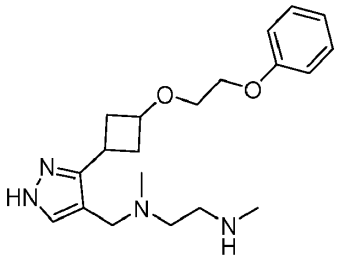
52	
53	
54	
55	
56	

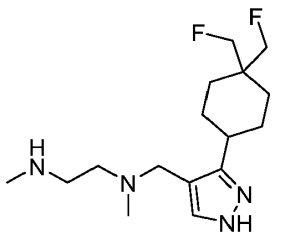
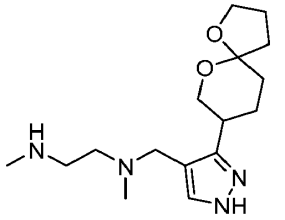
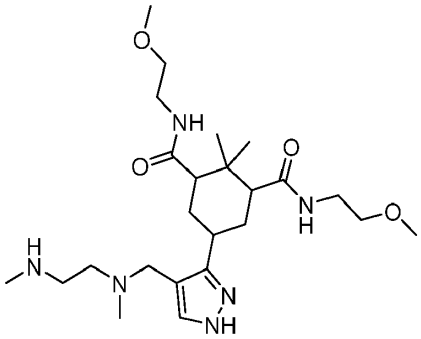
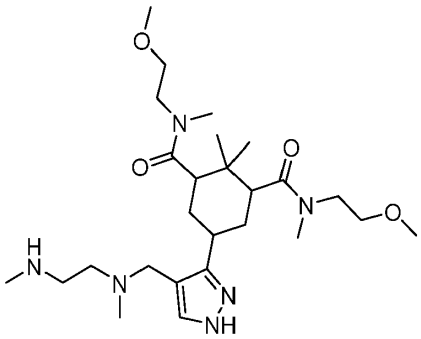
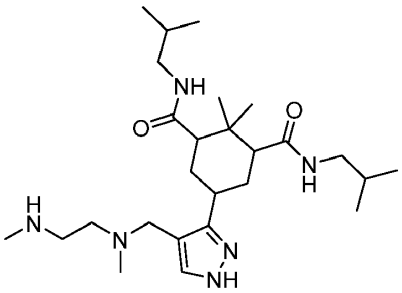
57	
58	
59	
60	

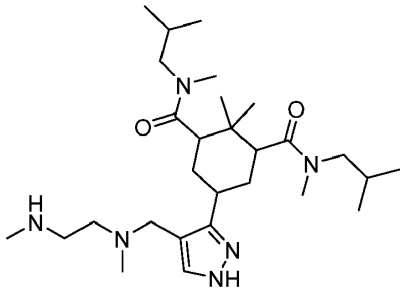
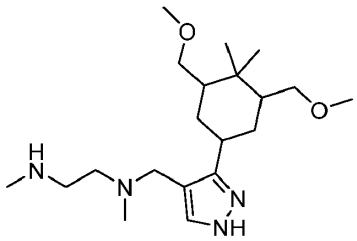
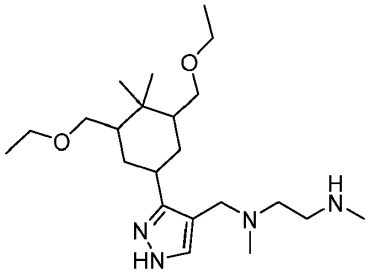
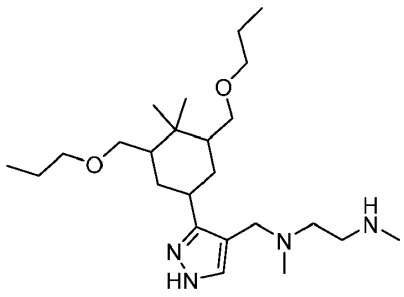
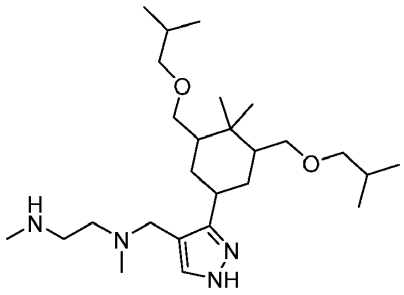
61	
62	
63	
64	
65	

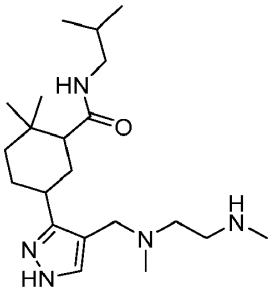
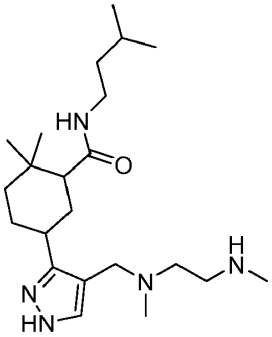
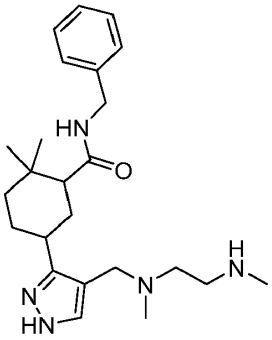
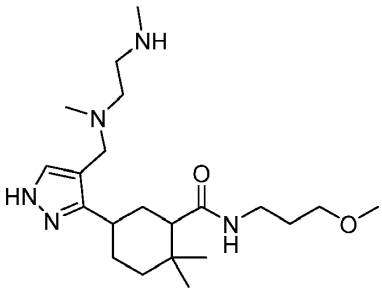
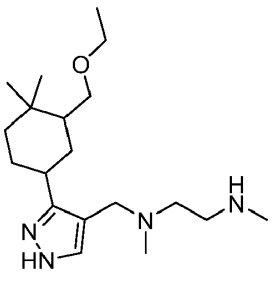
66	
67	
68	
69	

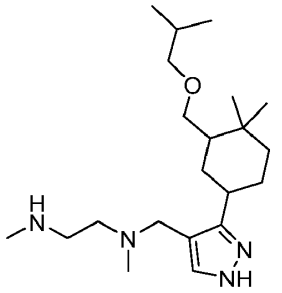
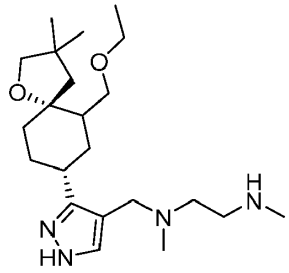
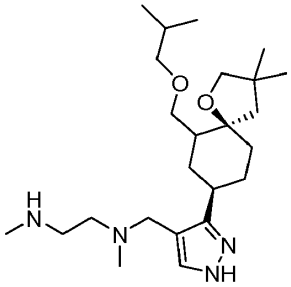
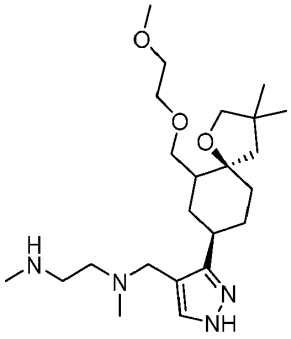
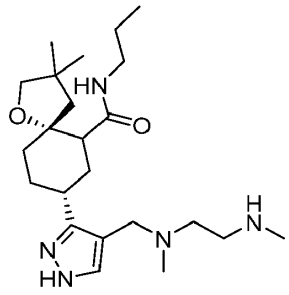
70	
71	
72	
73	
74	

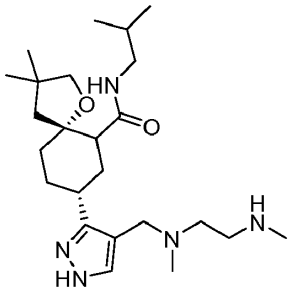
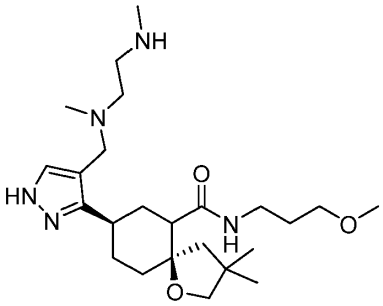
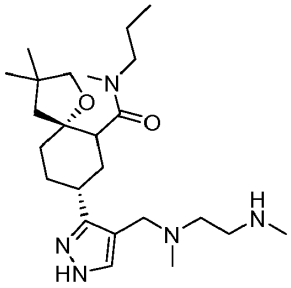
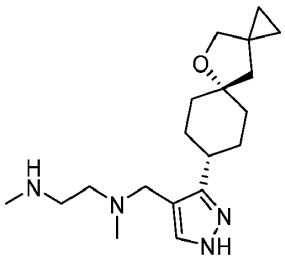
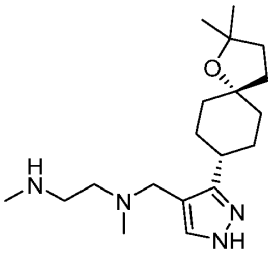
75	
76	
77	
78	
79	

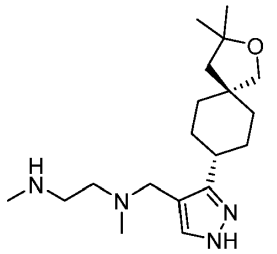
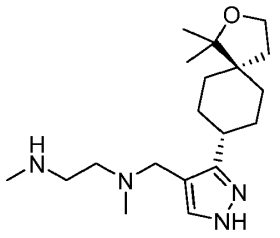
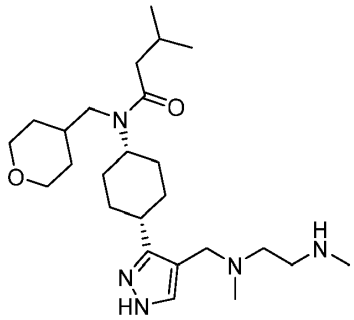
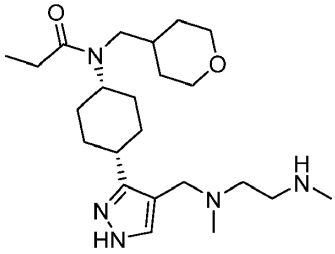
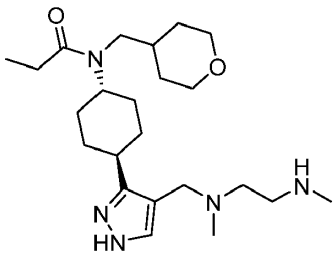
80	
81	
82	
83	
84	

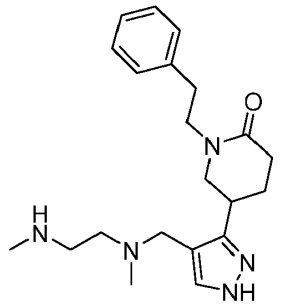
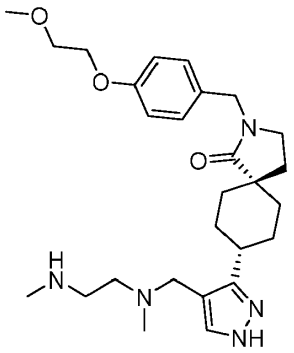
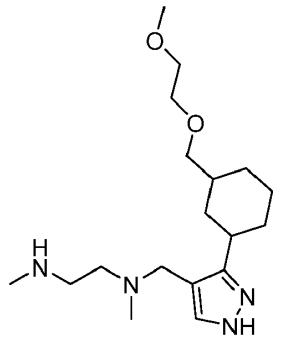
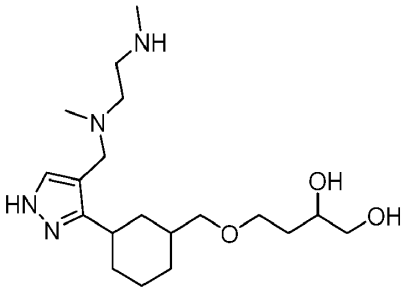
85	
86	
87	
88	
89	

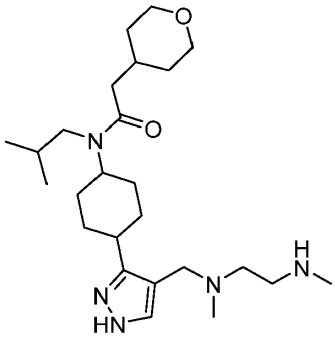
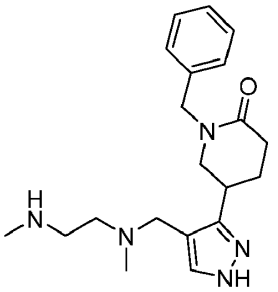
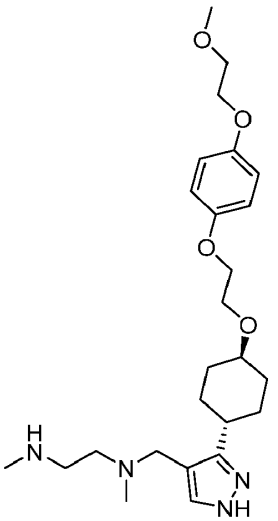
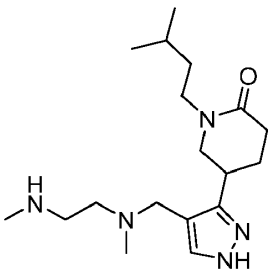
90	
91	
92	
93	
94	

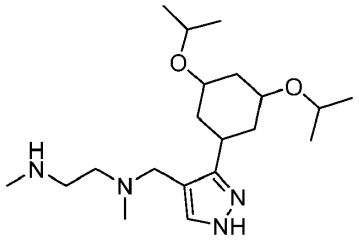
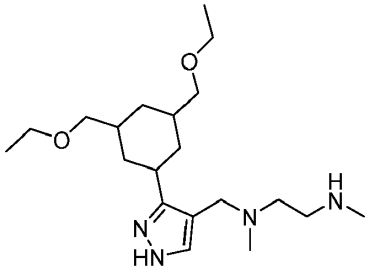
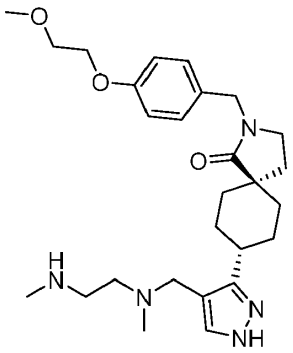
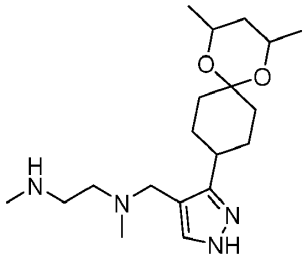
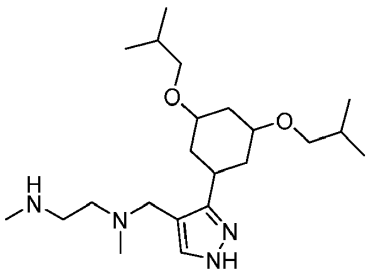
95	
96	
97	
98	
99	

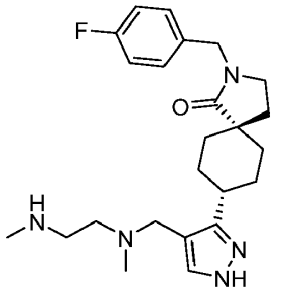
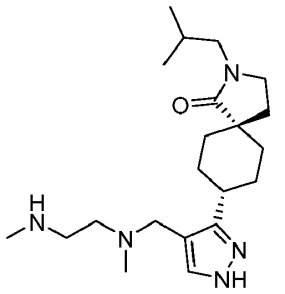
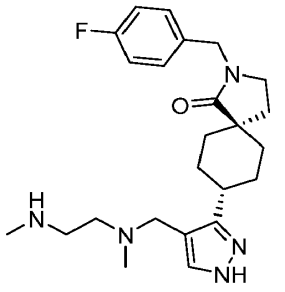
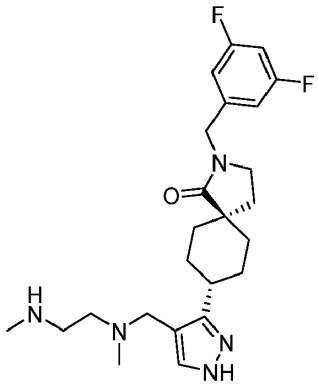
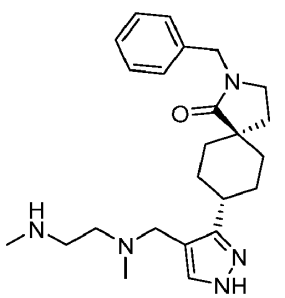
100	
101	
102	
103	
104	

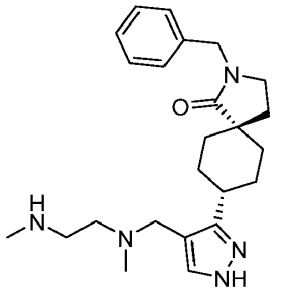
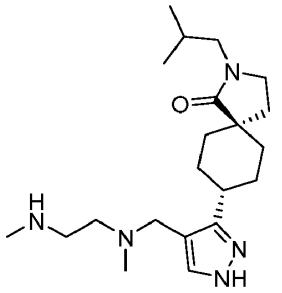
105	
106	
107	
108	
109	

110	
111	
112	
113	

114	
115	
116	
117	

118	
119	
120	
121	
122	

123	
124	
125	
126	
127	

128	
129	
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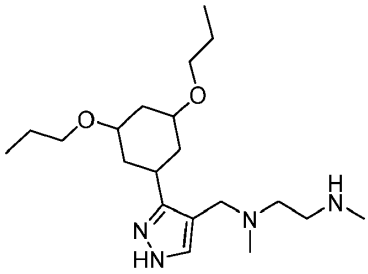
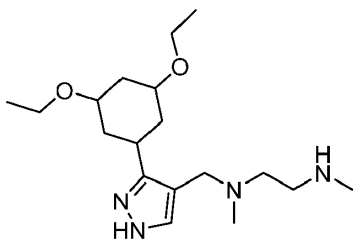
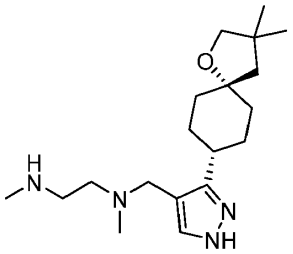
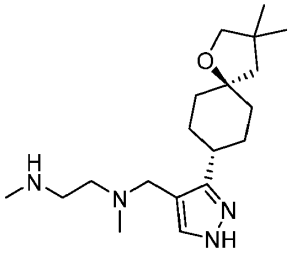
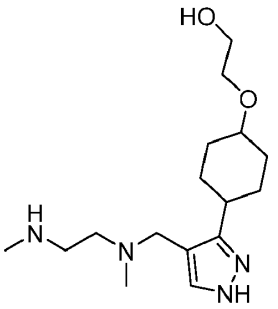
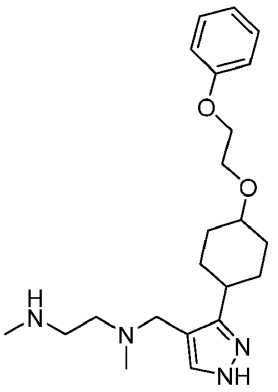
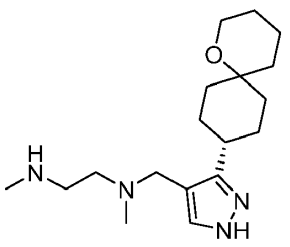
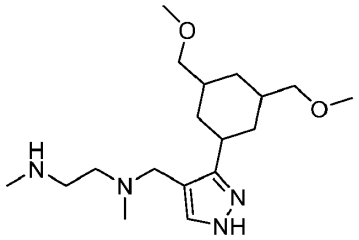
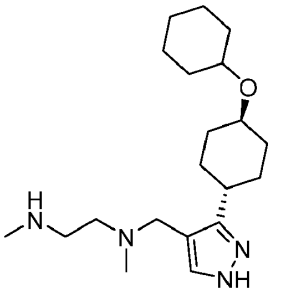
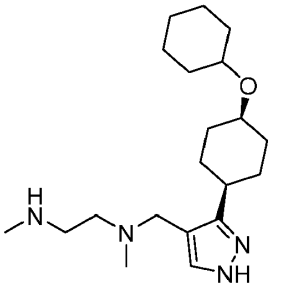
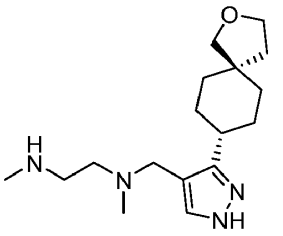
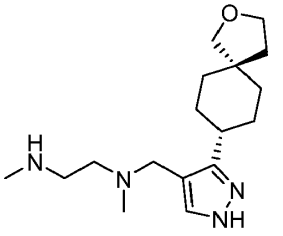
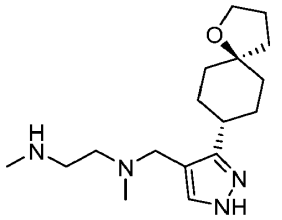
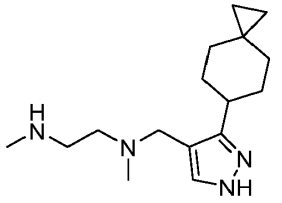
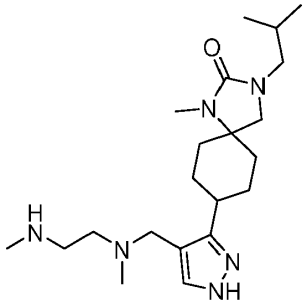
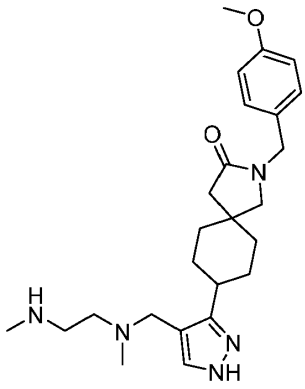
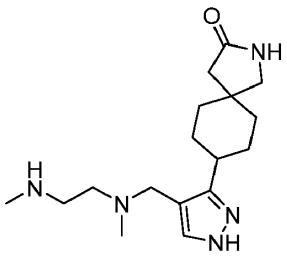
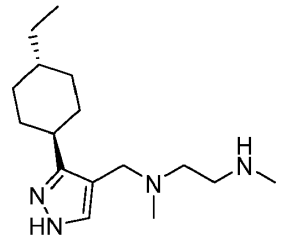
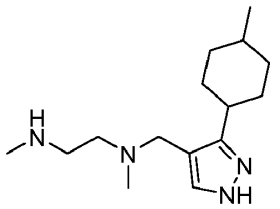
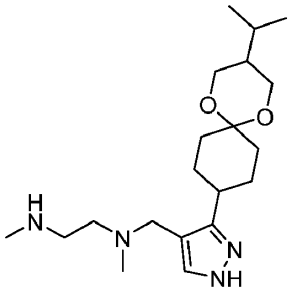
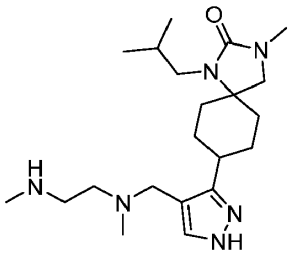
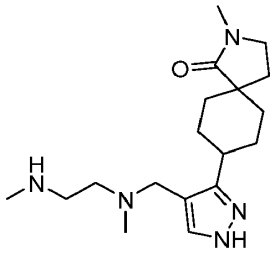
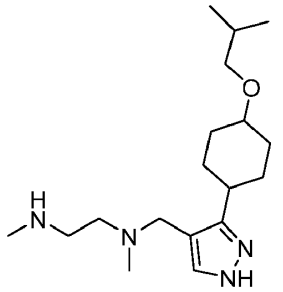
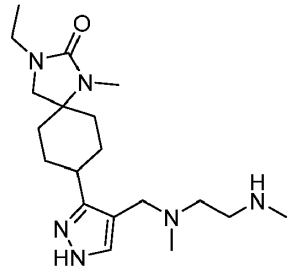
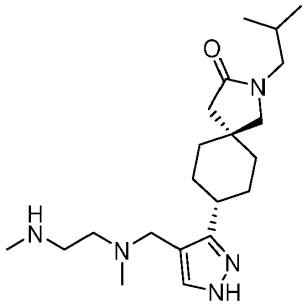
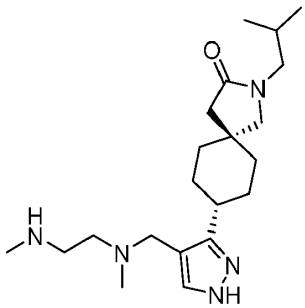
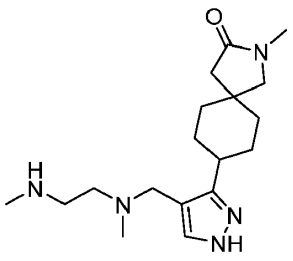
131	
132	

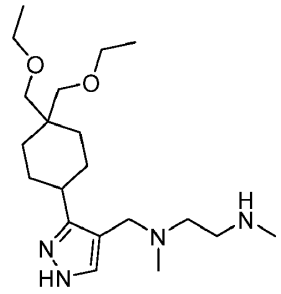
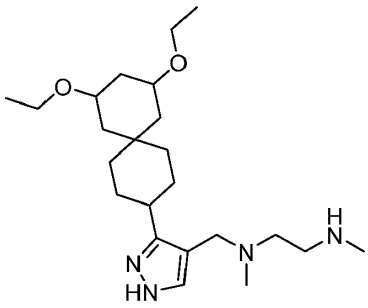
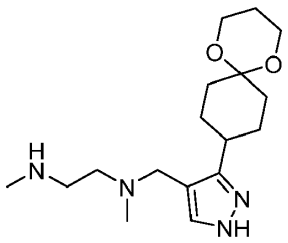
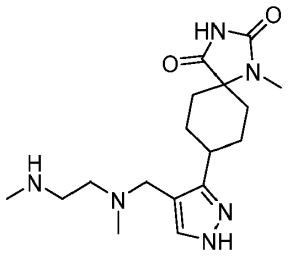
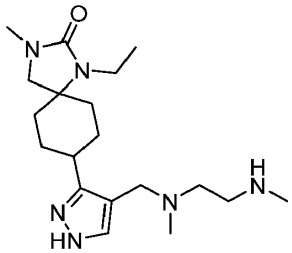
133	
134	
135	
136	
137	

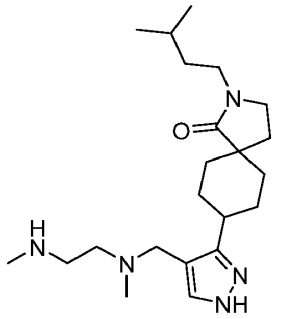
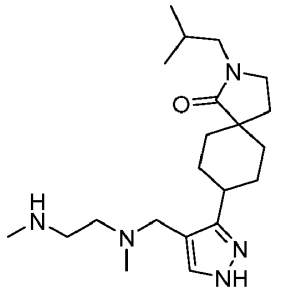
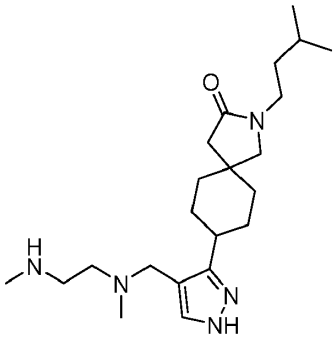
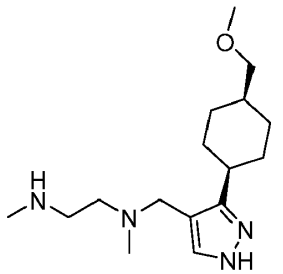
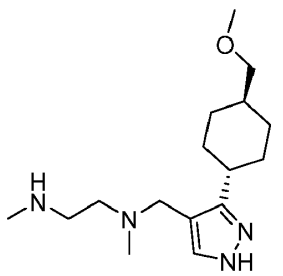
138	
139	
140	
141	
142	

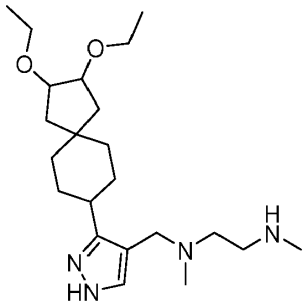
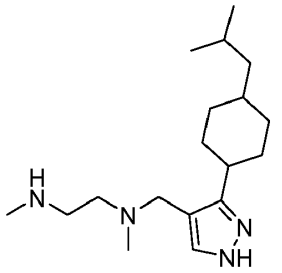
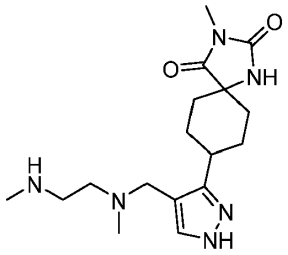
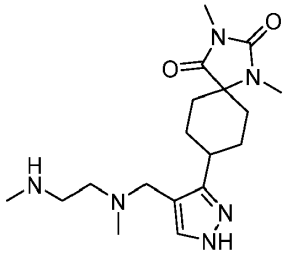
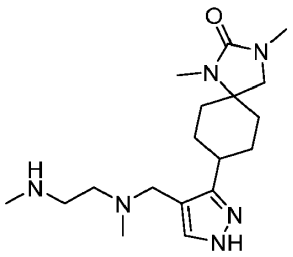
143	
144	
145	
146	
147	

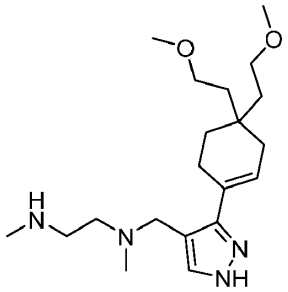
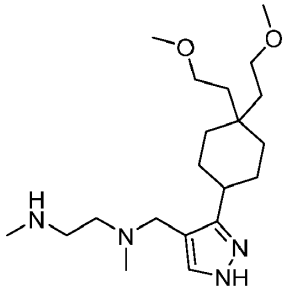
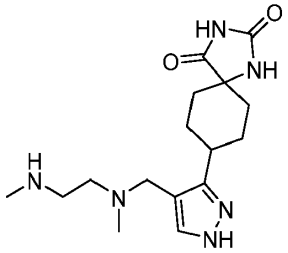
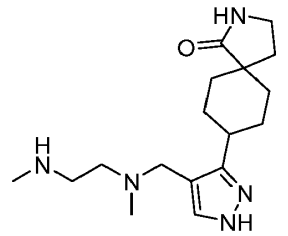
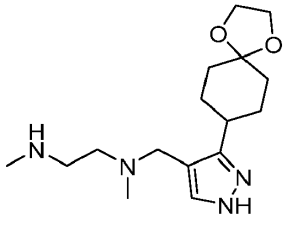
148	
149	
150	
151	
152	

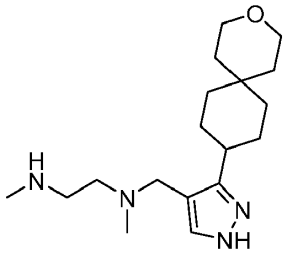
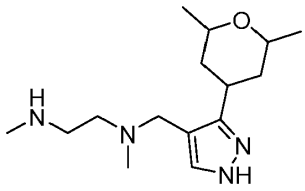
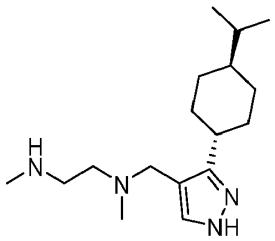
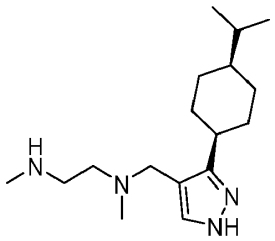
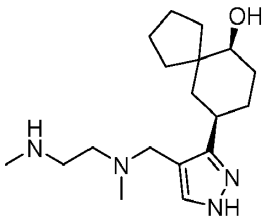
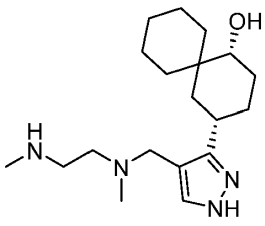
153	
154	
155	
156	
157	

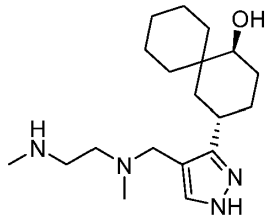
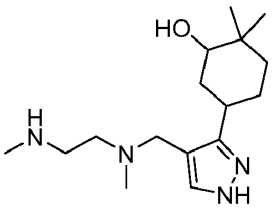
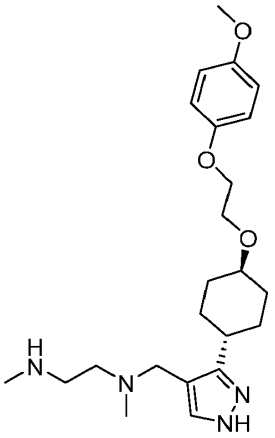
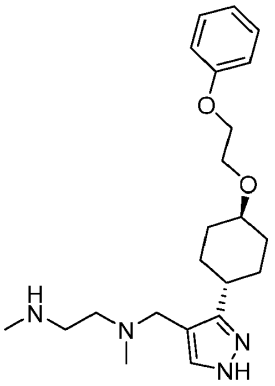
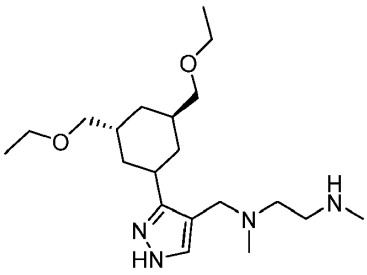
158	
159	
160	
161	
162	

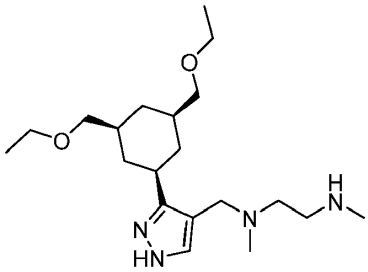
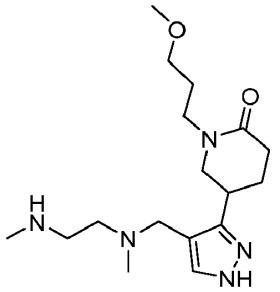
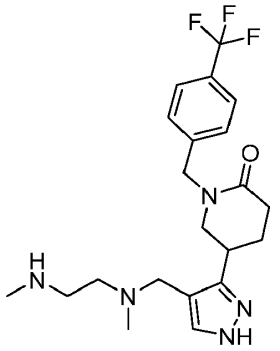
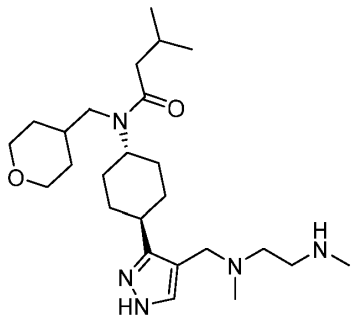
163	
164	
165	
166	
167	

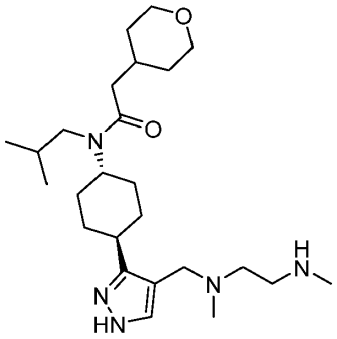
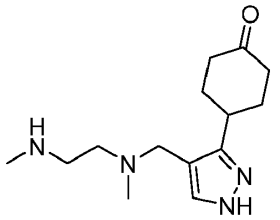
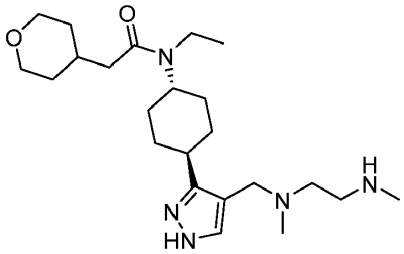
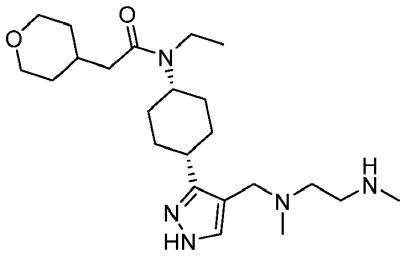
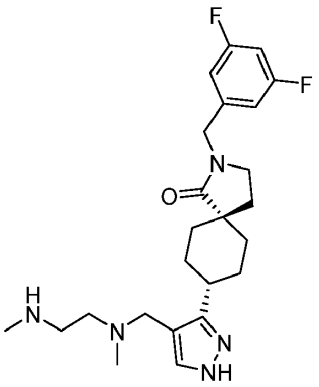
168	
169	
170	
171	
172	

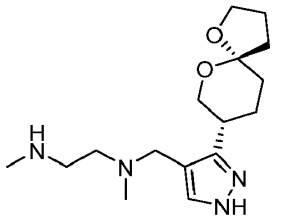
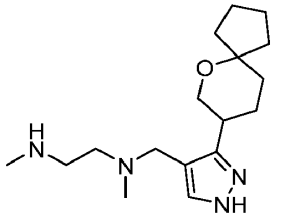
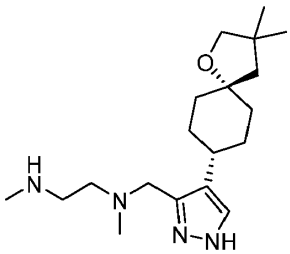
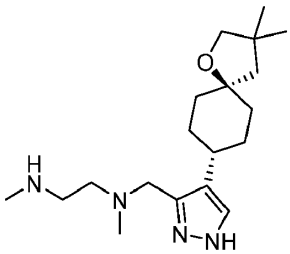
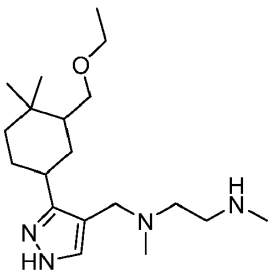
173	
174	
175	
176	
177	

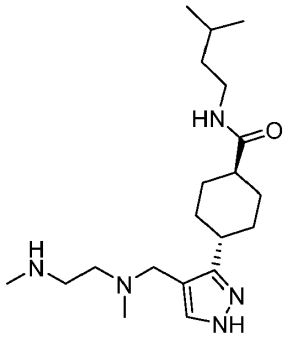
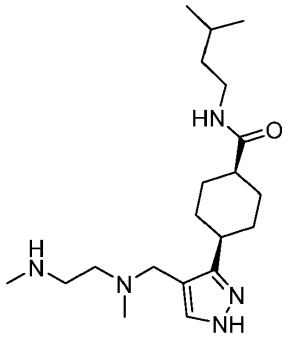
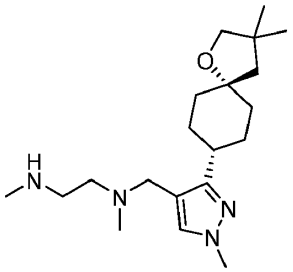
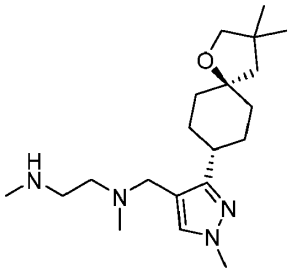
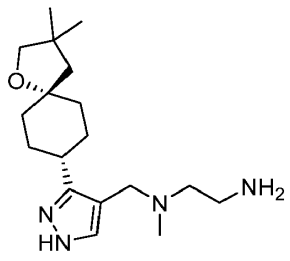
178	
179	
180	
181	
182	
183	

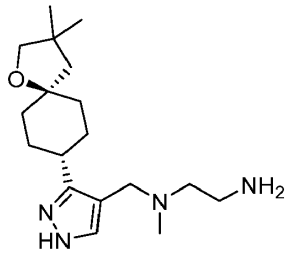
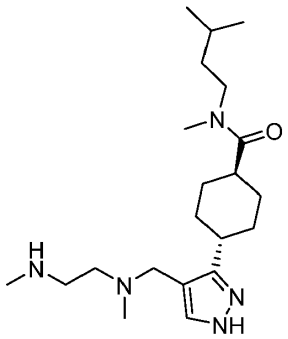
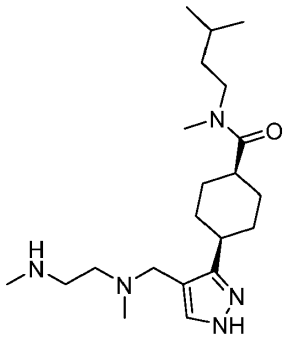
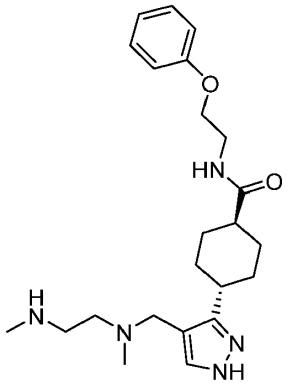
184	
185	
186	
187	
188	

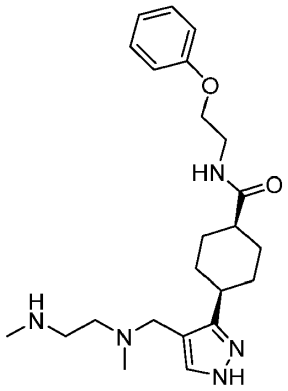
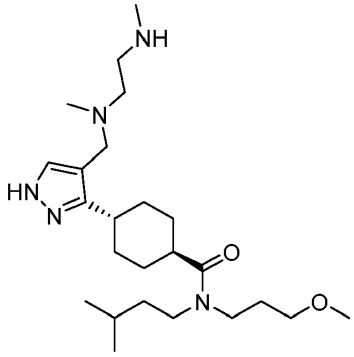
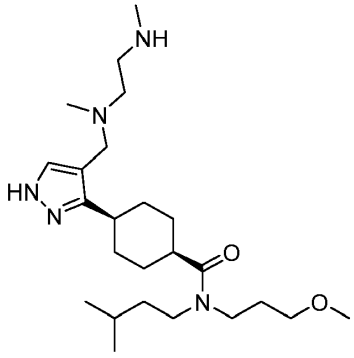
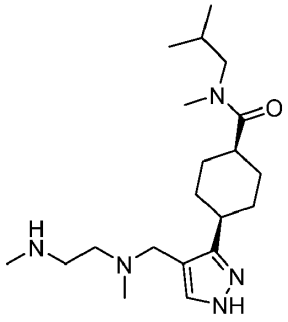
189	
190	
191	
192	

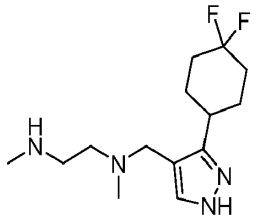
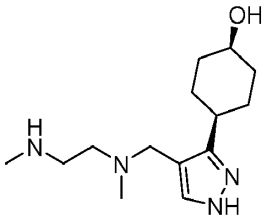
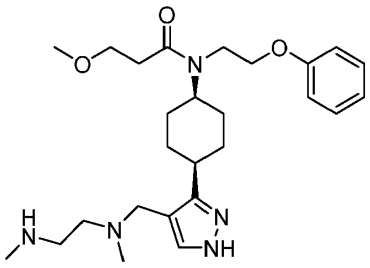
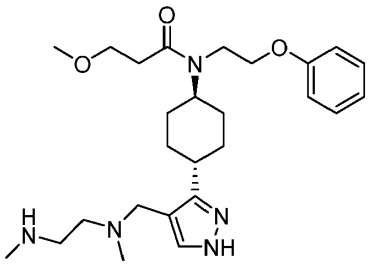
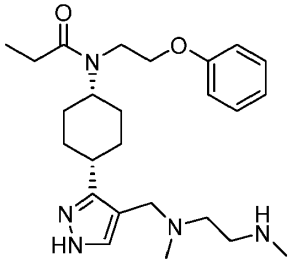
193	
194	
195	
196	
197	

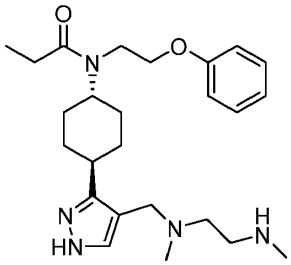
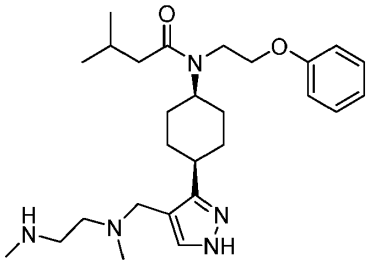
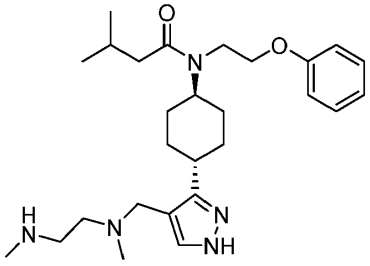
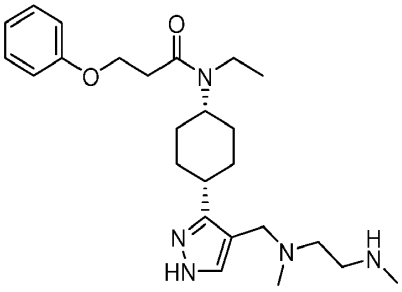
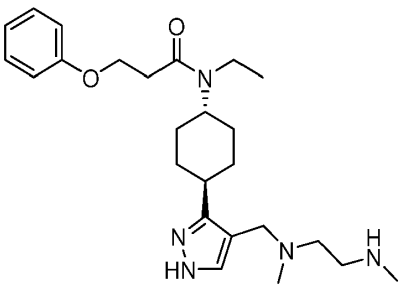
198	
199	
200	
201	
202	

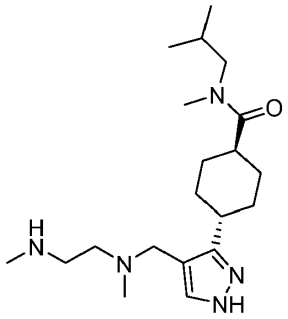
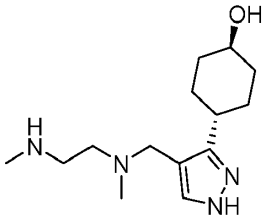
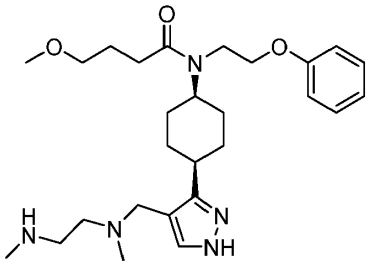
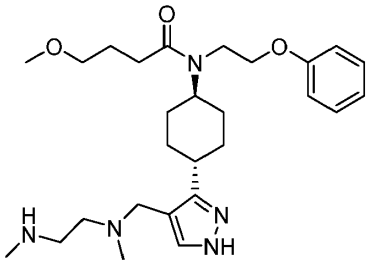
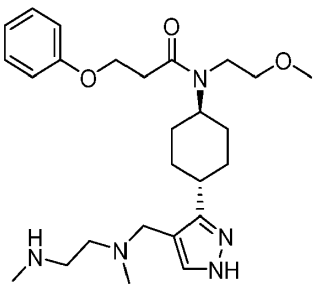
203	
204	
205	
206	
207	

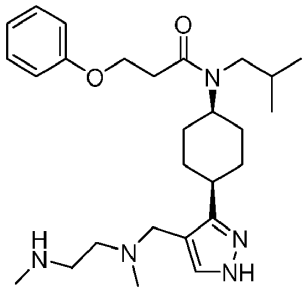
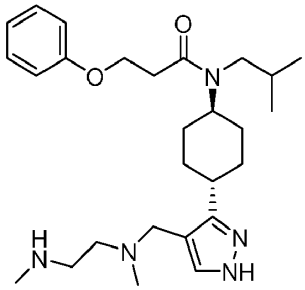
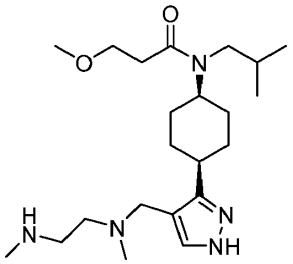
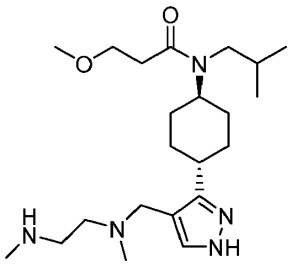
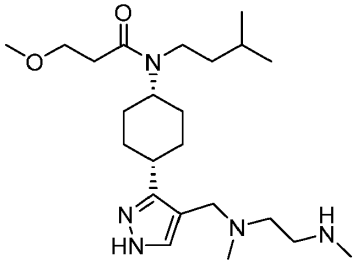
208	
209	
210	
211	

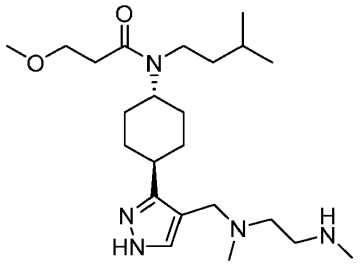
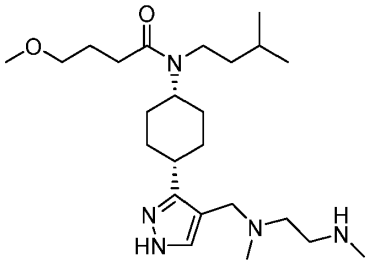
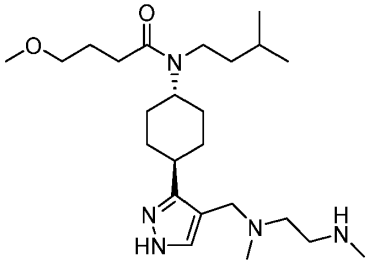
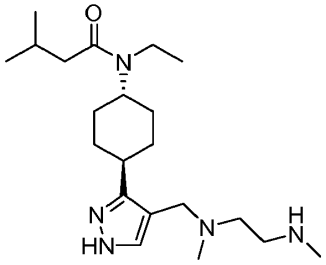
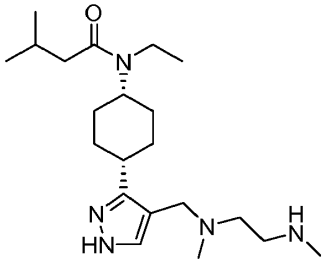
212	
213	
214	
215	

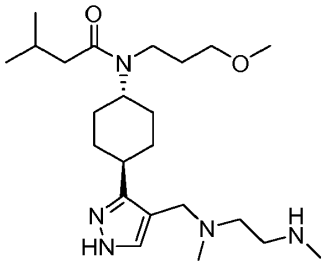
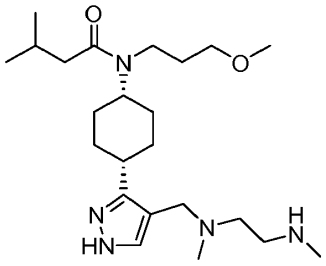
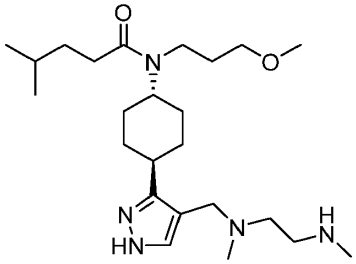
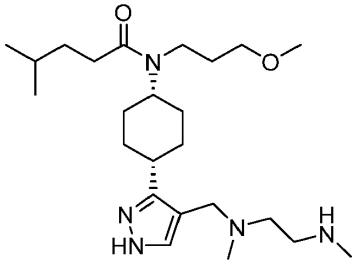
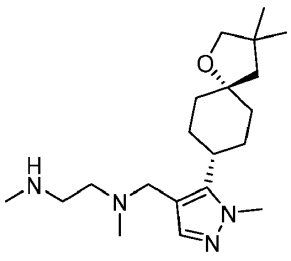
216	
217	
218	
219	
220	

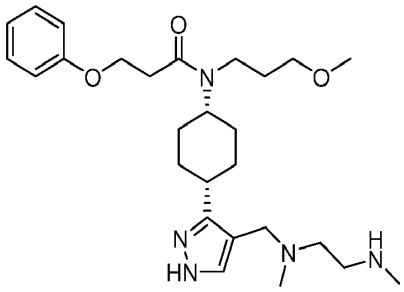
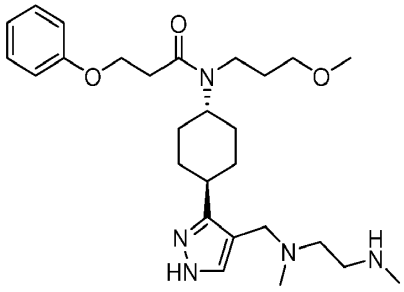
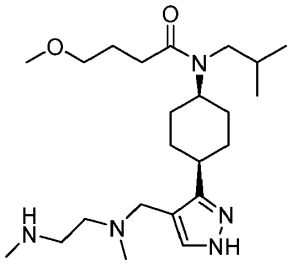
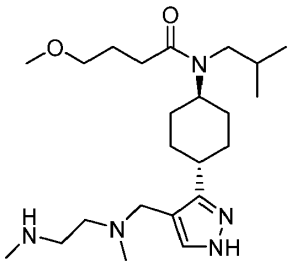
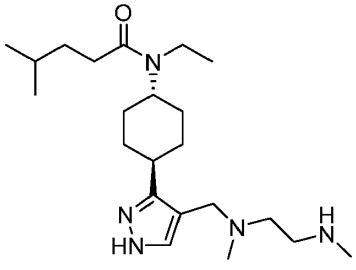
221	
222	
223	
224	
225	

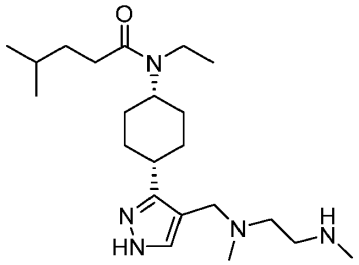
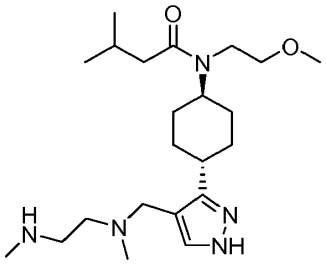
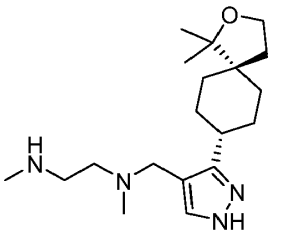
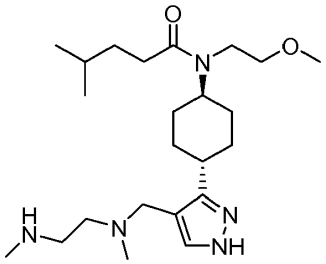
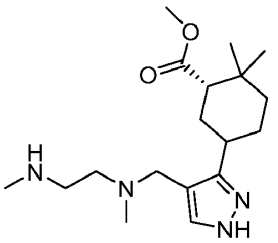
226	
227	
228	
229	
230	

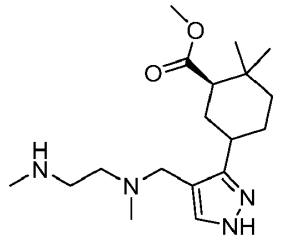
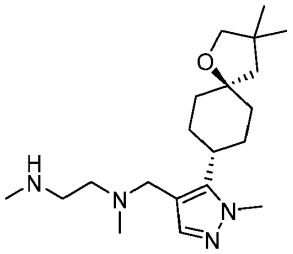
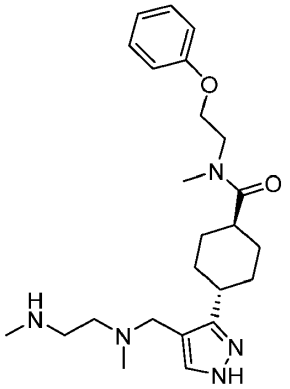
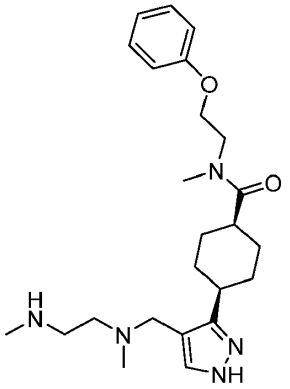
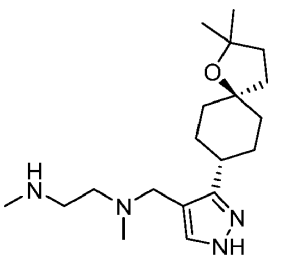
231	
232	
233	
234	
235	

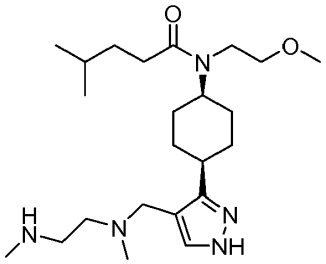
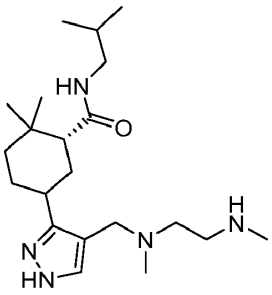
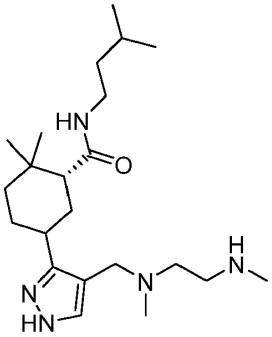
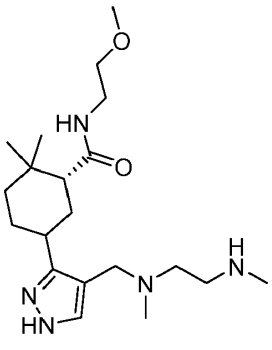
236	
237	
238	
239	
240	

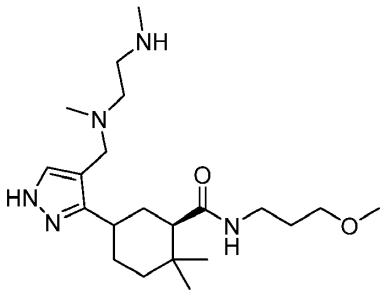
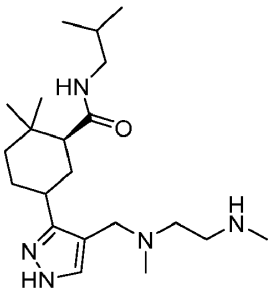
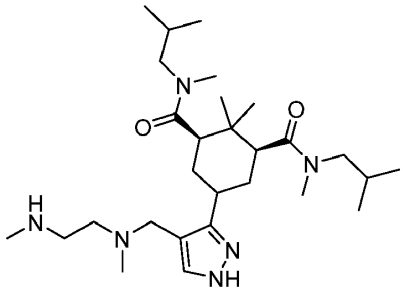
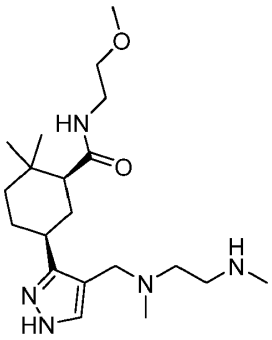
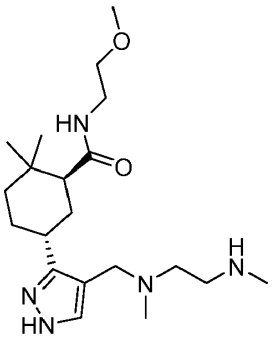
241	
242	
243	
244	
245	

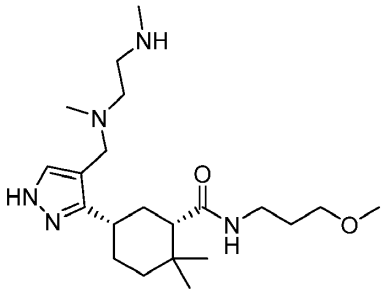
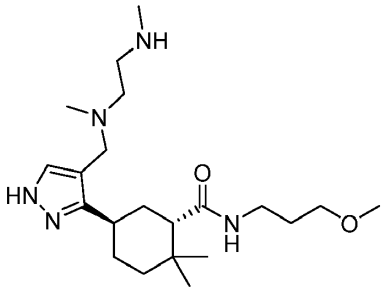
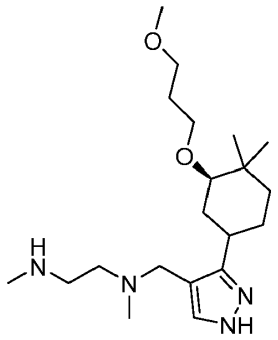
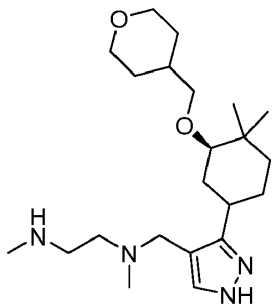
246	
247	
248	
249	
250	

251	
252	
253	
254	
255	

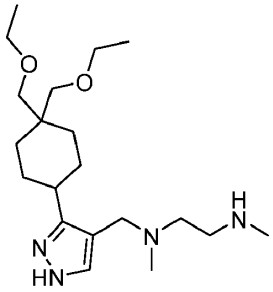
256	
257	
258	
259	
260	

261	
262	
263	
264	

265	
266	
267	
268	
269	

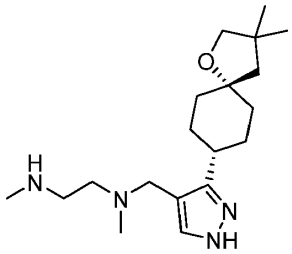
270	
271	
272	
273	

13. En forbindelse ifølge krav 1, hvor forbindelsen er:



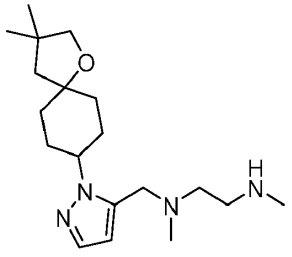
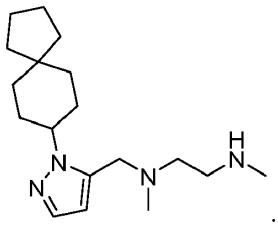
eller et farmasøytisk akseptabelt salt derav.

14. En forbindelse ifølge krav 1, hvor forbindelsen er:



eller et farmasøytisk akseptabelt salt derav.

15. En forbindelse som er valgt fra gruppen som består av de følgende forbindelsene eller et farmasøytisk akseptabelt salt derav:

 og  .

16. En farmasøytisk sammensetning som omfatter en forbindelse ifølge et hvilket som helst av kravene 1-12, eller et farmasøytisk akseptabelt salt derav, og en farmasøytisk akseptabelt hjelpemiddel.

17. En farmasøytisk sammensetning som omfatter en forbindelse ifølge et hvilket som helst av kravene 13-15, eller et farmasøytisk akseptabelt salt derav, og en farmasøytisk akseptabelt hjelpemiddel.

18. En forbindelse ifølge et hvilket som helst av kravene 1-15, eller et farmasøytisk akseptabelt salt derav, eller en farmasøytisk sammensetning ifølge krav 16, for bruk i behandling av en proliferativ forstyrelse, en nevrologisk forstyrelse, en muskulær dystrofi, en autoimmun forstyrelse, en vaskulær forstyrelse, eller en metabolsk forstyrelse.

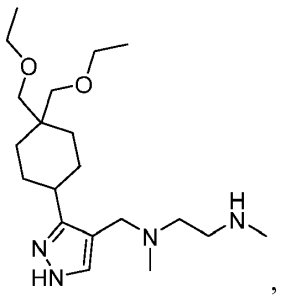
19. En forbindelse ifølge et hvilket som helst av kravene 1-15, eller et farmasøytisk akseptabelt salt derav, eller en farmasøytisk sammensetning ifølge krav 16, for bruk i behandling av kreft.

20. En forbindelse ifølge et hvilket som helst av kravene 1-15, eller et farmasøytisk akseptabelt salt derav, eller en farmasøytisk sammensetning ifølge krav 16, for bruk ifølge krav 19, hvor kreften er brystkreft, prostatakreft, lungekreft, kolorektal kreft, blærekreft, nyrekreft, leukemi eller lymfom.

21. En forbindelse ifølge et hvilket som helst av kravene 1-12, eller et farmasøytisk akseptabelt salt derav, eller en farmasøytisk sammensetning ifølge krav 16, for bruk ifølge krav 20, hvor kreften er leukemi.

22. En forbindelse ifølge et hvilket som helst av kravene 1-12, eller et farmasøytisk akseptabelt salt derav, eller en farmasøytisk sammensetning ifølge krav 16, for bruk ifølge krav 21, hvor leukemi er akutt myelosytisk leukemi.

23. En forbindelse ifølge et hvilket som helst av kravene 1-12, for bruk ifølge krav 18-21, hvor forbindelsen er



,

eller et farmasøytisk akseptabelt salt derav.

24. Forbindelsen ifølge krav 1, eller et farmasøytisk akseptabelt salt derav, hvor X er CR^5, Z er N, og Y er NR^4.