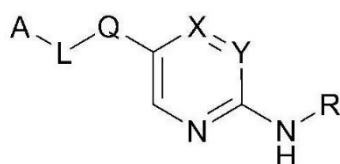


CLAIMS

1. A compound represented by the chemical formula 1, or a pharmaceutically acceptable salt thereof:

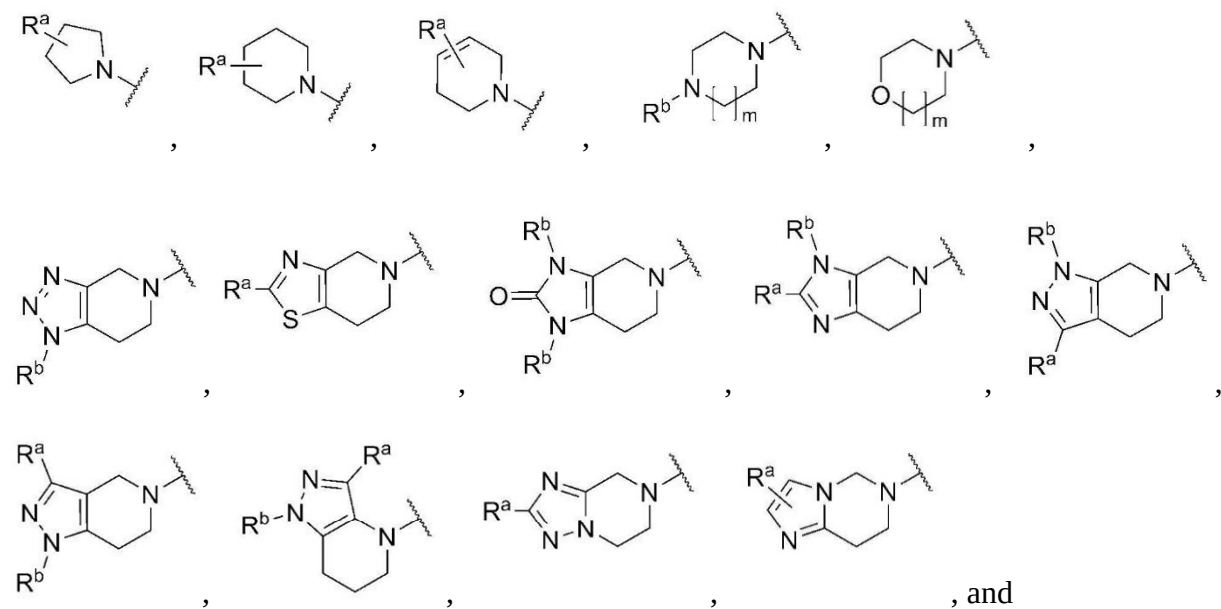
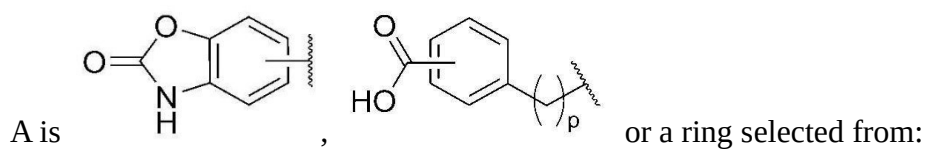
[Chemical formula 1]



wherein:

X is CH and Y is N;

R is indanyl;





, wherein

R^a is hydrogen, carboxyl, carbamoyl, C1-C10 alkylsulfonylamino, aminosulfonylamino ($\text{NH}\text{SO}_2\text{NH}_2$), or amino;

R^b is hydrogen, carboxyl, or aminosulfonyl;

m is an integer of 0, 1, or 2;

p is 0;

L is $\text{-(CR}_3\text{R}_4)_a\text{C(=O)-}$, $\text{-C(=O)-(CR}_3\text{R}_4)_a\text{-}$, $\text{-C(=O)-(CR}_5\text{R}_6)_b\text{-NH-(CR}_7\text{R}_8)_c\text{-}$, $\text{-NH-(CR}_7\text{R}_8)_c\text{-C(=O)-(CR}_5\text{R}_6)_b\text{-}$, or $\text{-C(=NR}_9\text{)-(CR}_3\text{R}_4)_a\text{-}$;

R_3 to R_8 are each independently hydrogen or C1-C10 alkyl;

R_9 is hydroxy;

a is an integer of from 1 to 5;

b and c are each independently an integer of from 0 to 5;

Q is a five-membered heteroarylene having 2 or 3 heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur;

said heteroarylene of above Q may be further substituted with one or more substituents that are selected from C1-C10 alkyl, halo-substituted C1-C10 alkyl, hydroxy C1-C10 alkyl, C3-C10 cycloalkyl, C6-C12 aryl, C2-C12 heteroaryl, carboxyl, $\text{NR}_{11}\text{R}_{12}$, $\text{-O(CH}_2)_e\text{R}_{13}$, $\text{-(CH}_2)_f\text{R}_{14}$, and -C(=O)R_{15} , in which said alkyl, cycloalkyl, aryl, and heteroaryl may be further substituted with $\text{NR}_{11}\text{R}_{12}$ or carboxyl;

R_{11} and R_{12} are each independently hydrogen, C1-C10 alkyl, C6-C12 aryl, C2-C12 heteroaryl, or C3-C10 cycloalkyl;

e and f are each independently an integer of from 0 to 5;

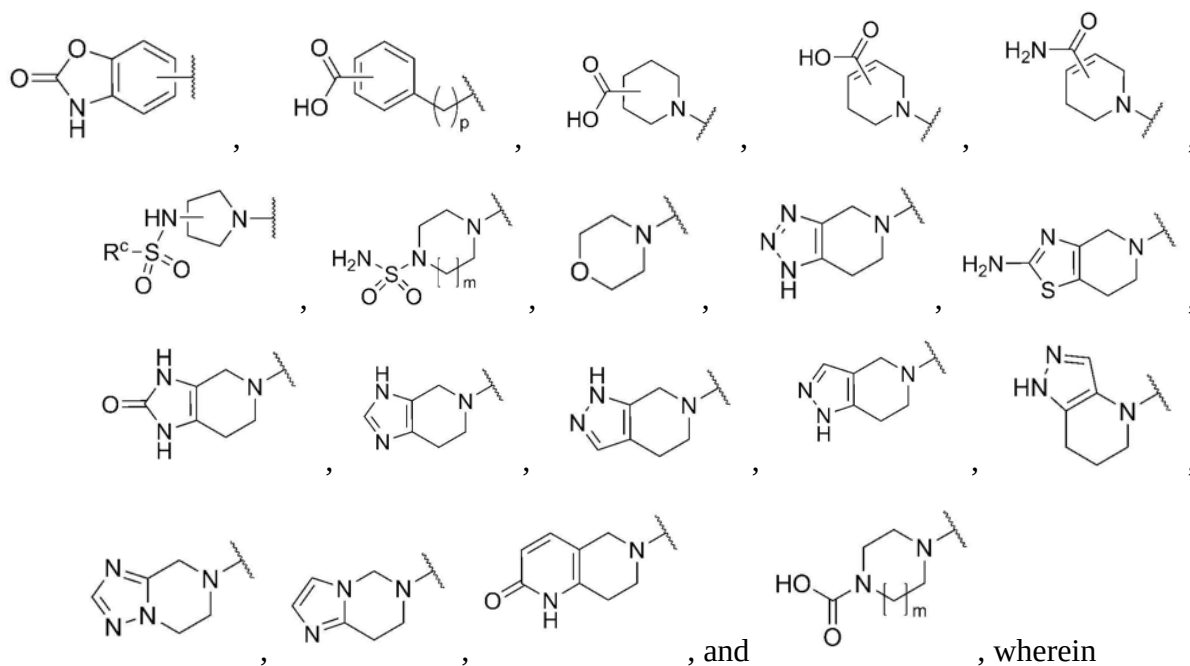
R_{13} is hydrogen, C1-C10 alkyl, C6-C12 aryl, C2-C12 heterocycloalkyl, or carboxyl, in which said aryl and heterocycloalkyl of above R_{13} may be further substituted with one or more substituents that are selected from C1-C10 alkyl, halo-substituted C1-C10 alkyl, and

carboxyl;

R₁₄ and R₁₅ are each independently C2-C12 heterocycloalkyl, in which said heterocycloalkyl of R₁₄ and R₁₅ may be a single ring, a fused ring, or a spiro ring that is either saturated or unsaturated in which a CH₂ in the ring may be substituted with oxo, or in which said heterocycloalkyl of R₁₄ and R₁₅ may be substituted with one or more substituents that are selected from halogen, C1-C10 alkyl, halo-substituted C1-C10 alkyl, and C6-C12 aryl, or a CH₂ in the ring may be substituted with oxo, and also in which said heterocycloalkyl of R₁₄ and R₁₅ may be further substituted with one or more substituents that are selected from halogen, C1-C10 alkyl, halo-substituted C1-C10 alkyl, and C6-C12 aryl; and

said heteroaryl and heterocycloalkyl contain at least one heteroatom that is selected from nitrogen, oxygen, and sulfur.

2. The compound of Claim 1, or a pharmaceutically acceptable salt thereof, wherein A is selected from the following structures:



R^c is C1-C7 alkyl, or amino;

p is an integer of 0; and

m is an integer of 0, 1, or 2.

R₁₁ and R₁₂ are each independently hydrogen, C1-C7 alkyl, C6-C12 aryl, C2-C12 heteroaryl,

or C3-C7 cycloalkyl;

R_{13} is C6-C12 aryl, C3-C9 heterocycloalkyl, or carboxyl, in which said aryl and heterocycloalkyl of R_{13} may be further substituted with one or more substituents that are selected from C1-C7 alkyl, halo-substituted C1-C7 alkyl, and carboxyl;

R_{14} and R_{15} are each independently C3-C9 heterocycloalkyl, in which said heterocycloalkyl of R_{14} and R_{15} may be a single ring, a fused ring, or a spiro ring that is either saturated or unsaturated in which a CH_2 in the ring may be substituted with oxo, or in which said heterocycloalkyl of R_{14} and R_{15} may be substituted with one or more substituents that are selected from halogen, C1-C7 alkyl, halo-substituted C1-C7 alkyl, and C6-C12 aryl, or a CH_2 in the ring may be substituted with oxo, and also in which said heterocycloalkyl of R_{14} and R_{15} may be further substituted with one or more substituents that are selected from halogen, C1-C7 alkyl, halo-substituted C1-C7 alkyl, and C6-C12 aryl;

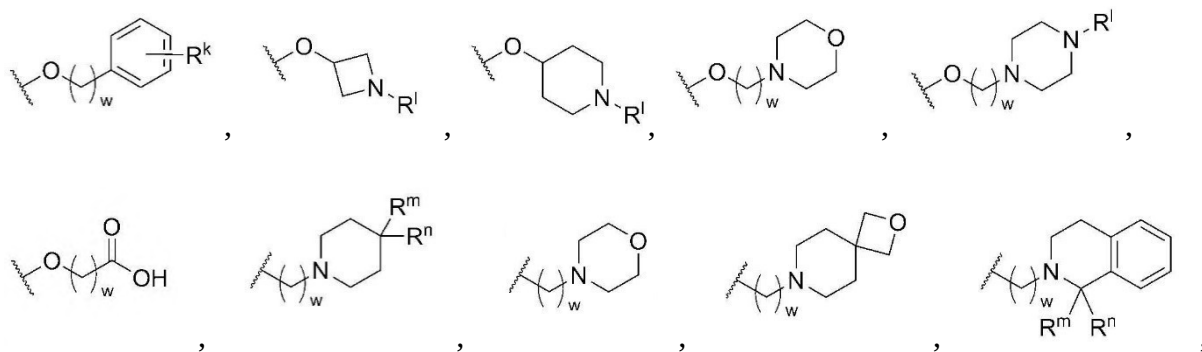
R^i is hydrogen, C1-C7 alkyl, or halo-substituted C1-C7 alkyl;

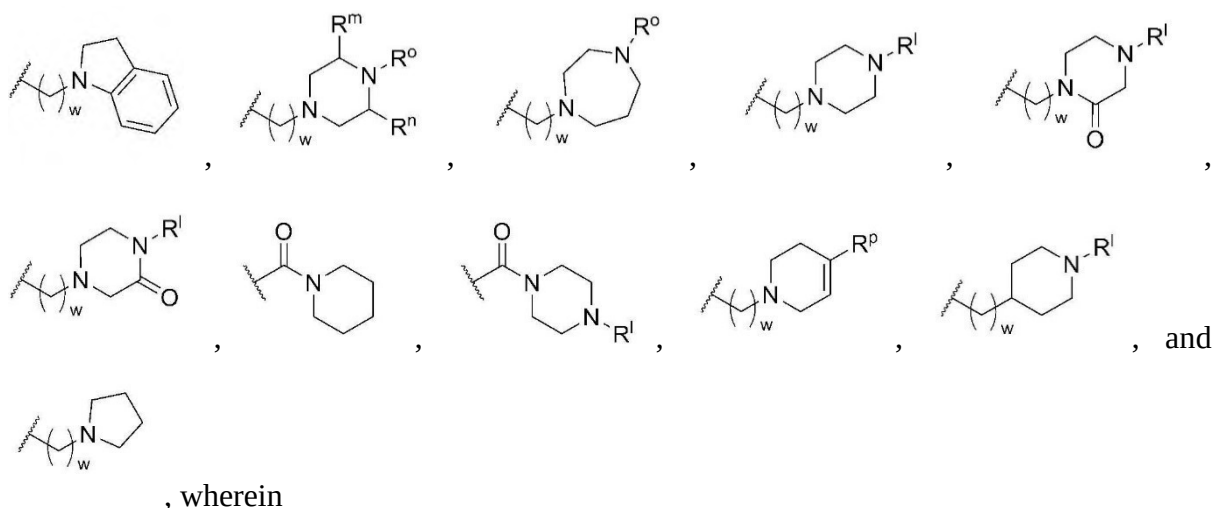
R^j is hydrogen, C1-C7 alkyl, halo-substituted C1-C7 alkyl, C3-C7 cycloalkyl, or C6-C12 aryl;

e is an integer of from 0 to 3; and

f is an integer of from 0 to 3.

5. The compound according to Claim 4, or a pharmaceutically acceptable salt thereof, wherein the R^h is hydrogen, hydroxy, $NR_{11}R_{12}$, C1-C7 alkoxy, C1-C7 alkyl, hydroxy C1-C7 alkyl, C3-C7 cycloalkyl, C6-C12 aryl, C2-C12 heteroaryl, or carboxyl, or selected from:





R_{11} and R_{12} are each independently hydrogen, C1-C7 alkyl, C6-C12 aryl, or C3-C7 cycloalkyl;

R^k is hydrogen or carboxyl;

R^l is hydrogen, C1-C7 alkyl, or halo-substituted C1-C7 alkyl;

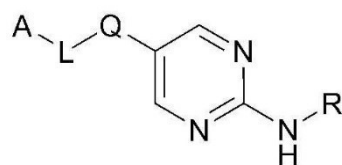
R^m and R^n are each independently hydrogen, C1-C7 alkyl, or halogen;

R^o is hydrogen or C1-C7 alkyl;

R^p is C6-C12 aryl; and

w is an integer of from 0 to 3.

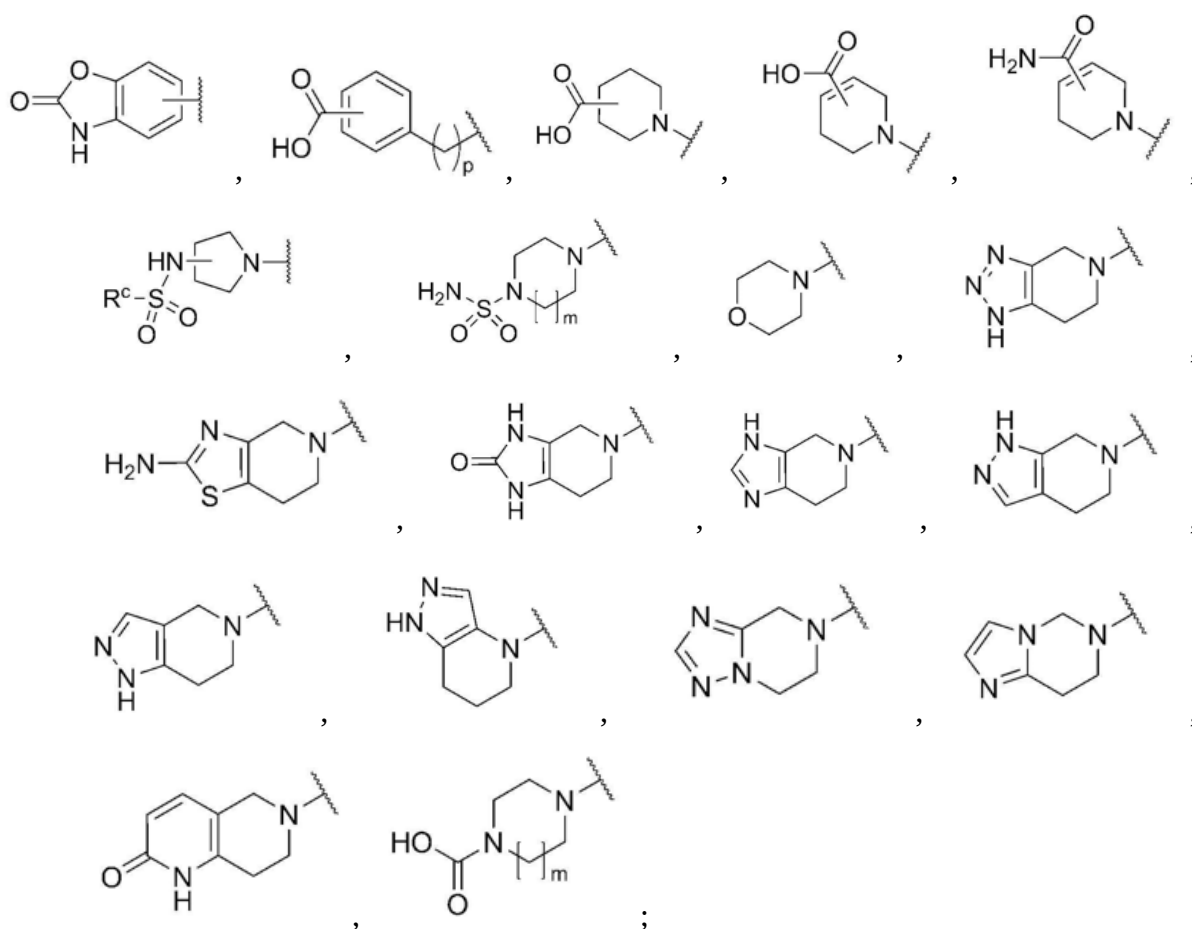
6. The compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein the compound is a compound represented by the following chemical formula 2;



wherein

R is indanyl;

A is selected from the following structures;

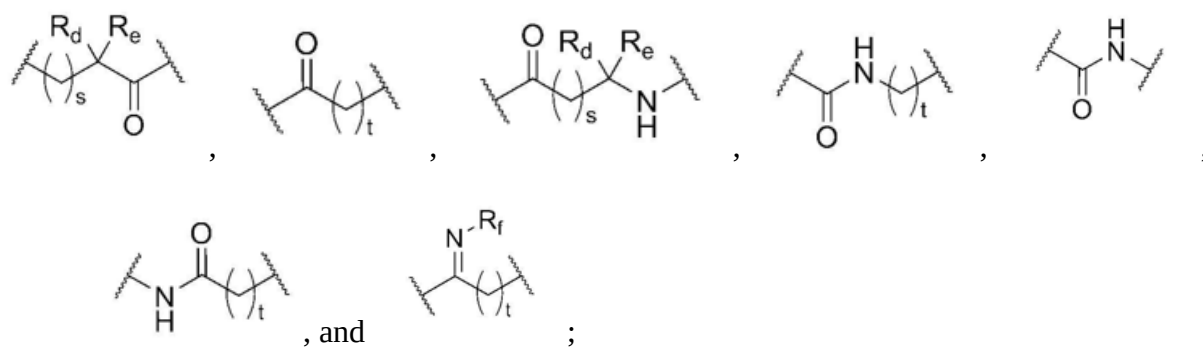


R^c is C1-C7 alkyl or amino;

p is an integer of 0;

m is an integer of 0, 1, or 2;

L is selected from:



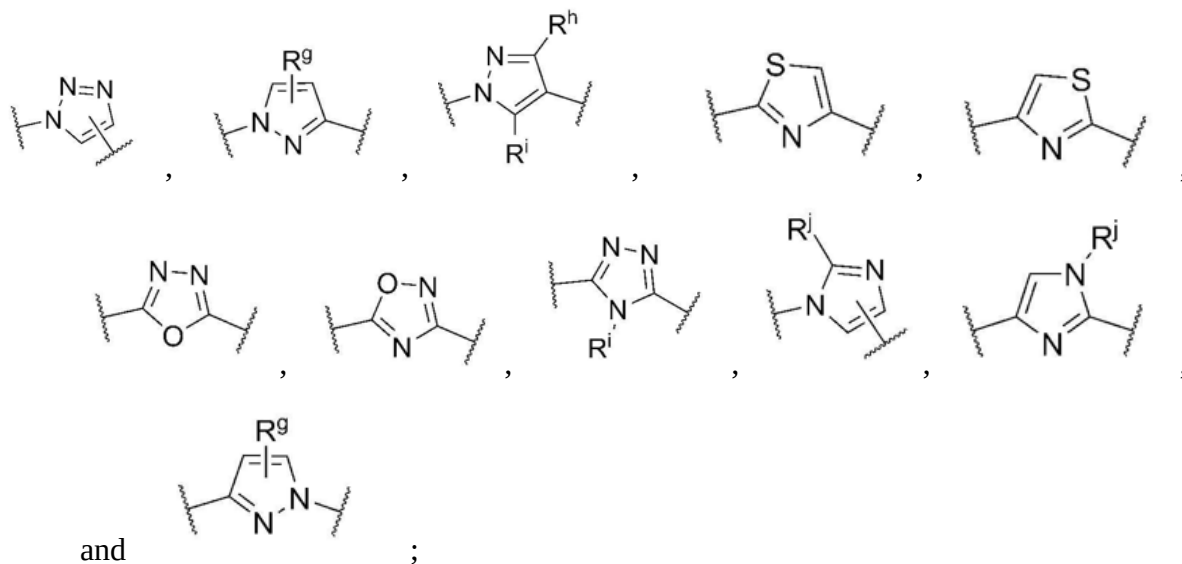
R_d and R_e are each independently hydrogen or C1-C7 alkyl;

R_f is hydroxy;

s is an integer of from 0 to 3;

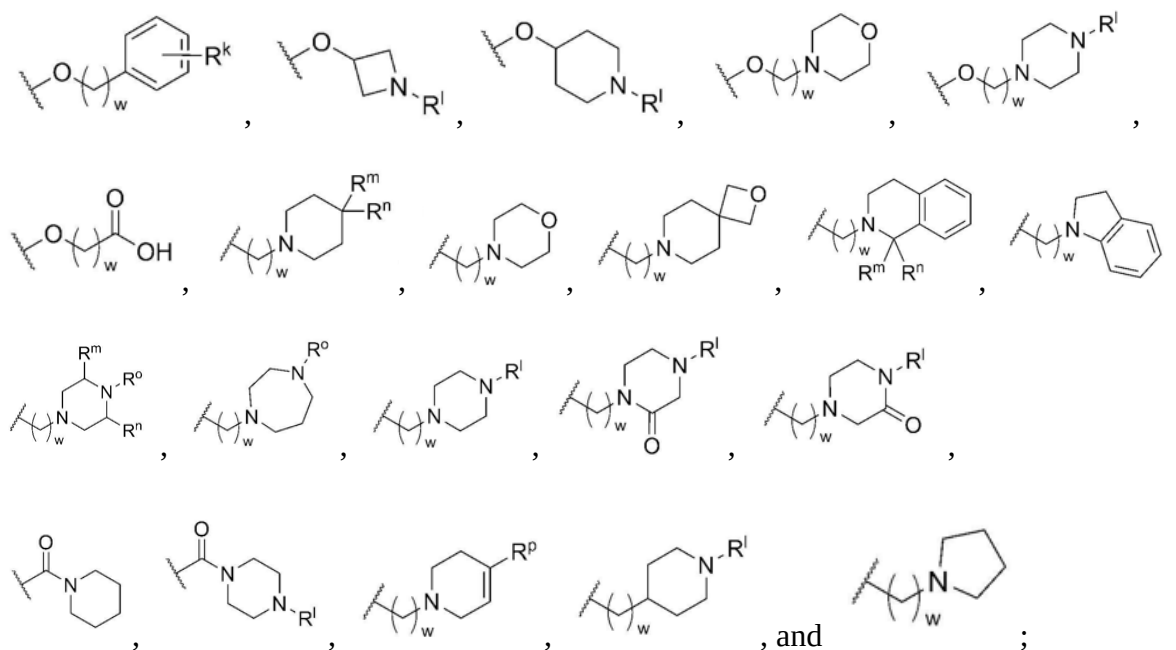
t is an integer of from 1 to 3;

Q is selected from the following structures:



R^g is hydrogen or C1-C7 alkyl;

R^h is hydrogen, hydroxy, $NR_{11}R_{12}$, C1-C7 alkoxy, C1-C7 alkyl, hydroxy C1-C7 alkyl, C3-C7 cycloalkyl, C6-C12 aryl, C2-C12 heteroaryl, or carboxyl, or selected from:



said alkyl, cycloalkyl, aryl, and heteroaryl of R^h may be further substituted with $NR_{11}R_{12}$ or

carboxyl;

Rⁱ is hydrogen, C1-C7 alkyl, or halo-substituted C1-C7 alkyl;

R^j is hydrogen, C1-C7 alkyl, halo-substituted C1-C7 alkyl, C3-C7 cycloalkyl, or C6-C12 aryl;

R₁₁ and R₁₂ are each independently hydrogen, C1-C7 alkyl, C6-C12 aryl, or C3-C7 cycloalkyl;

R^k is hydrogen or carboxyl;

R^l is hydrogen, C1-C7 alkyl, or halo-substituted C1-C7 alkyl;

R^m and Rⁿ are each independently hydrogen, C1-C7 alkyl, or halogen;

R^o is hydrogen or C1-C7 alkyl;

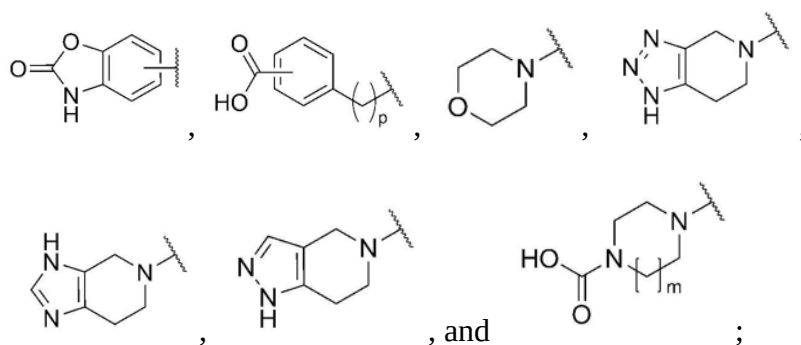
R^p is C6-C12 aryl; and

w is an integer of from 0 to 3.

7. The compound according to Claim 6, or a pharmaceutically acceptable salt thereof, wherein

R is indanyl;

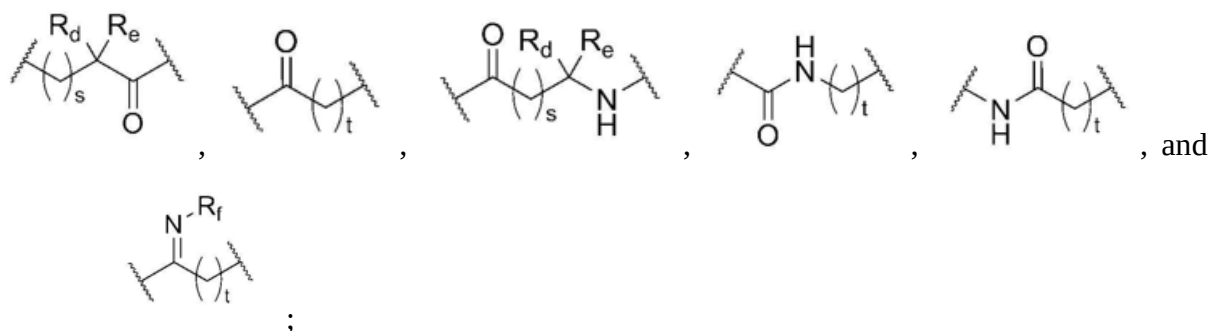
A is selected from :



p is an integer of 0;

m is an integer of 0, 1, or 2;

L is selected from:

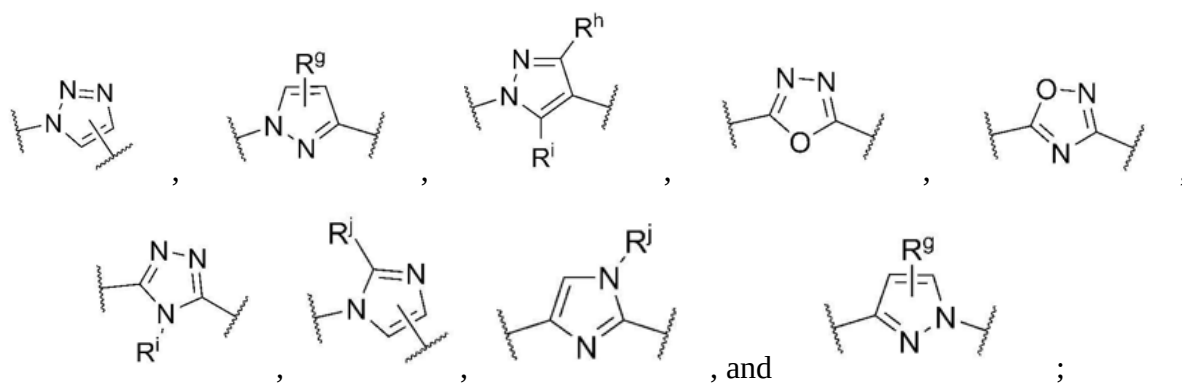


R^d and R^e are each independently hydrogen or C1-C7 alkyl;

s is an integer of from 0 to 3;

t is an integer of from 1 to 3;

Q is selected from the following structures;

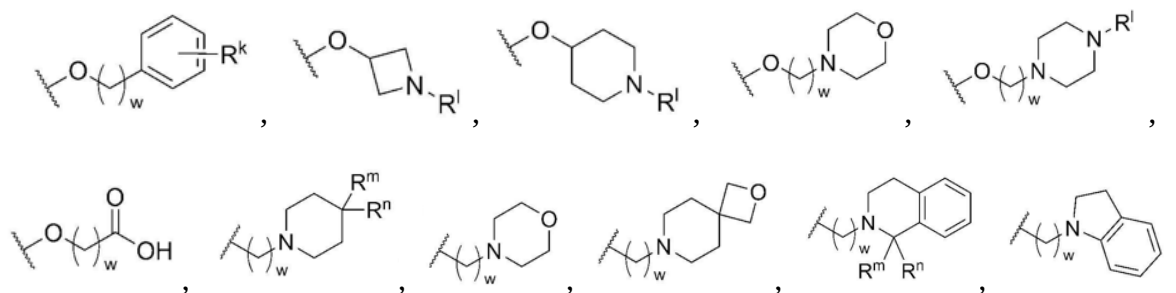


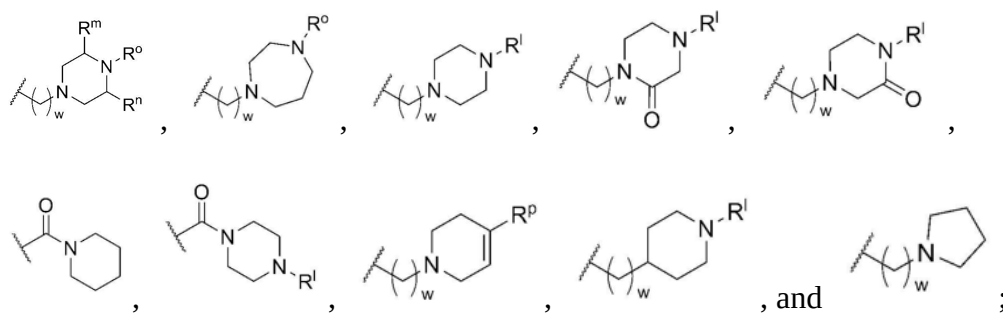
R^g is hydrogen or C1-C7 alkyl;

R^i is hydrogen, C1-C7 alkyl, or halo-substituted C1-C7 alkyl;

R^j is hydrogen, C1-C7 alkyl, halo-substituted C1-C7 alkyl, C3-C7 cycloalkyl, or C6-C12 aryl;

R^h is hydrogen, hydroxy, $NR_{11}R_{12}$, C1-C7 alkoxy, C1-C7 alkyl, hydroxy C1-C7 alkyl, C3-C7 cycloalkyl, C6-C12 aryl, C2-C12 heteroaryl, or carboxyl, or selected from:





R_{11} and R_{12} are each independently hydrogen, C1-C7 alkyl, C6-C12 aryl, or C3-C7 cycloalkyl;

R^k is hydrogen or carboxyl;

R^l is hydrogen, C1-C7 alkyl, or halo-substituted C1-C7 alkyl;

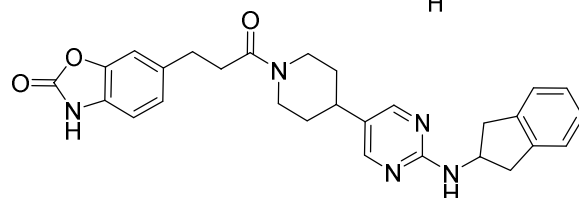
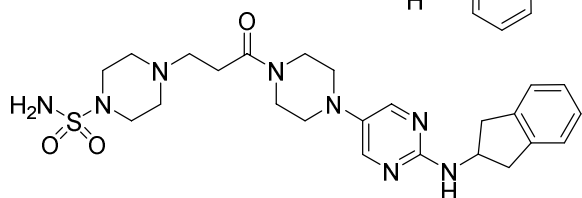
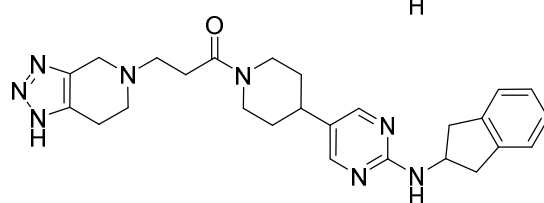
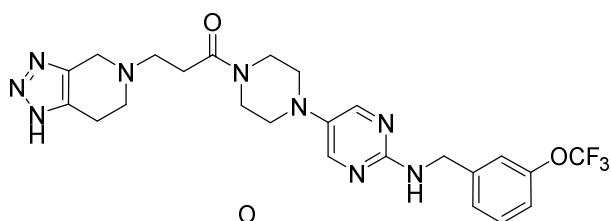
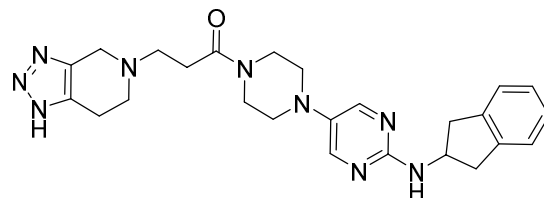
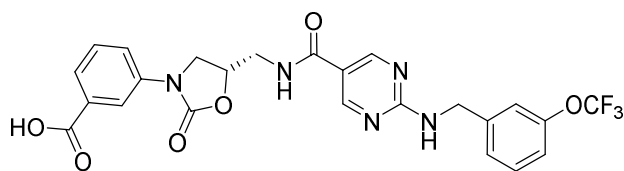
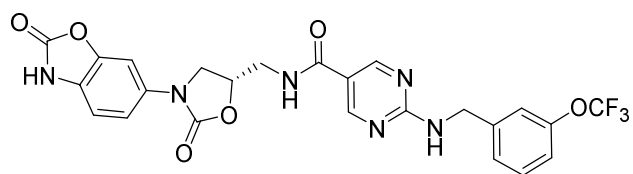
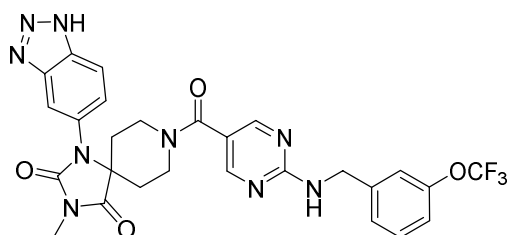
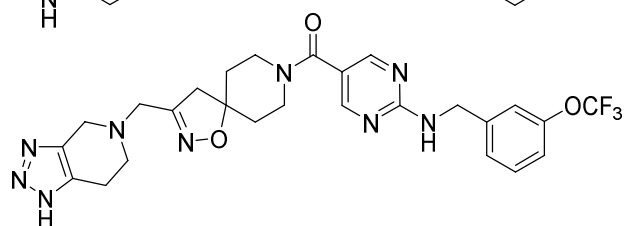
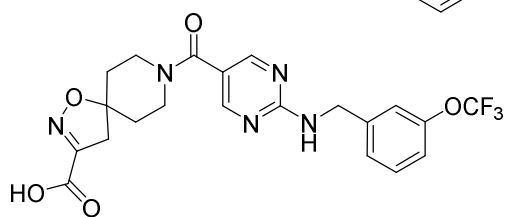
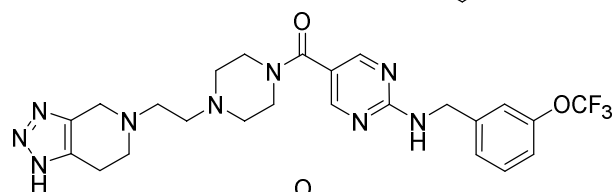
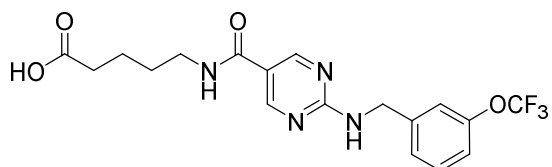
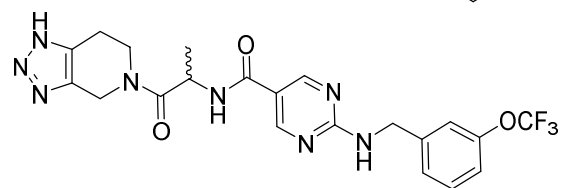
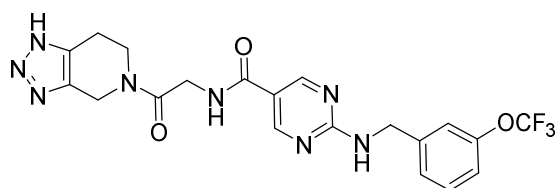
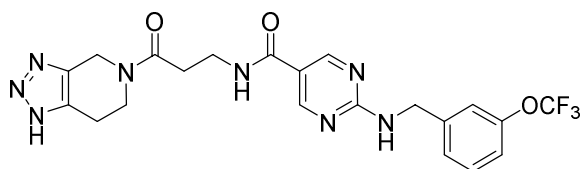
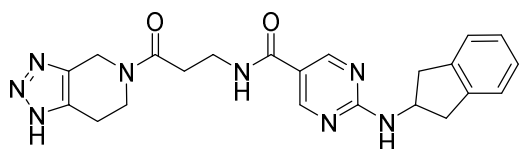
R^m and R^n are each independently hydrogen, C1-C7 alkyl, or halogen;

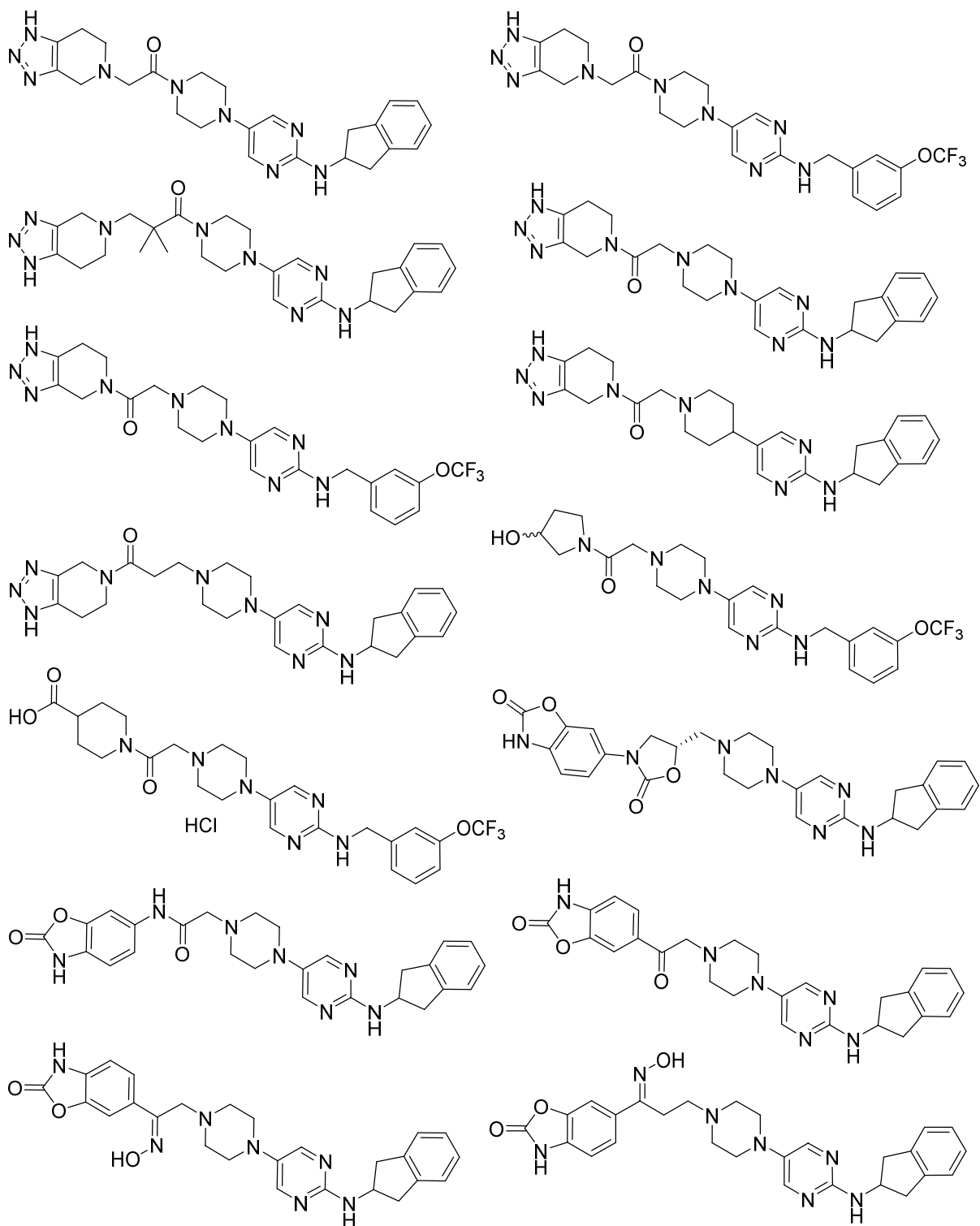
R^o is hydrogen or C1-C7 alkyl;

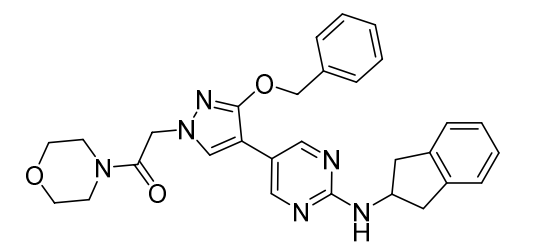
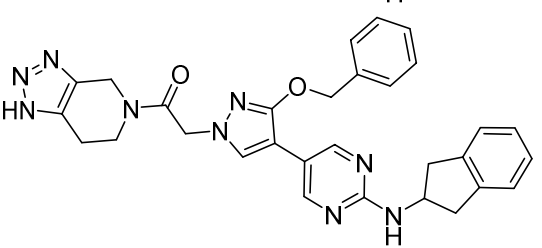
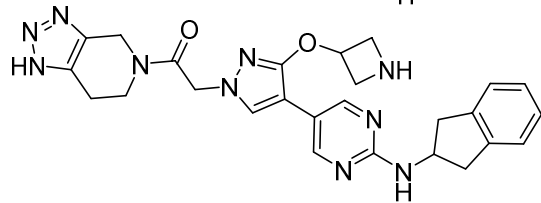
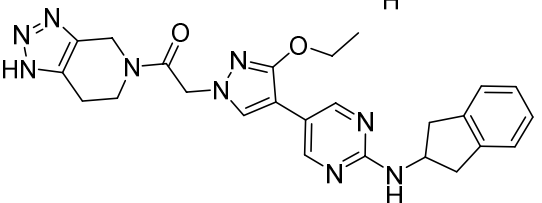
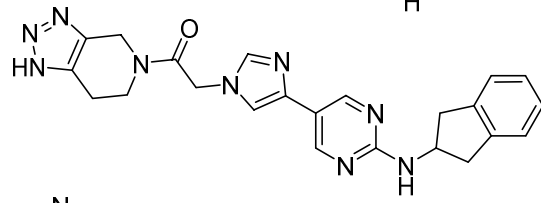
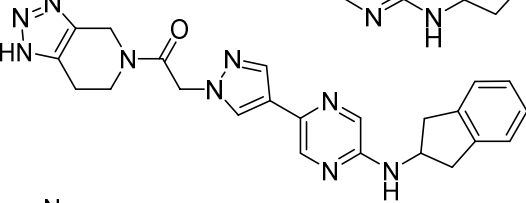
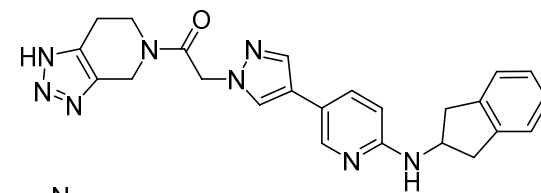
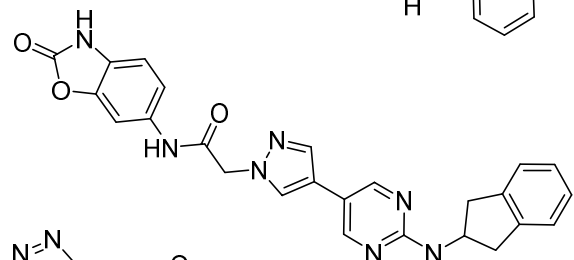
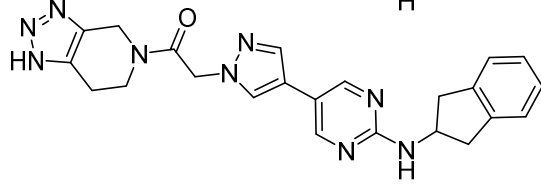
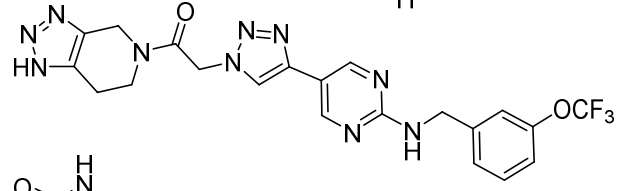
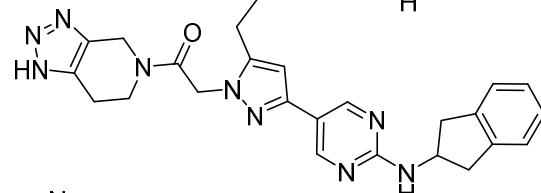
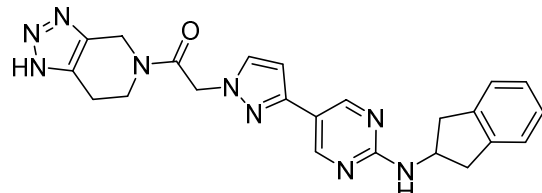
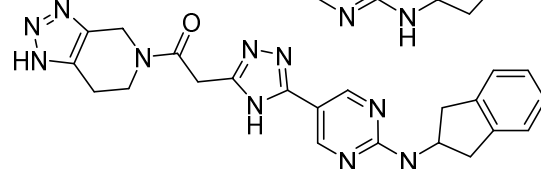
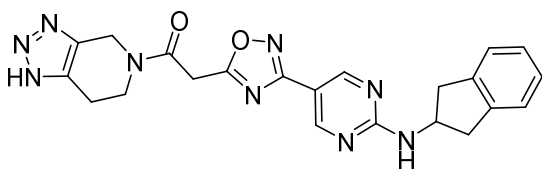
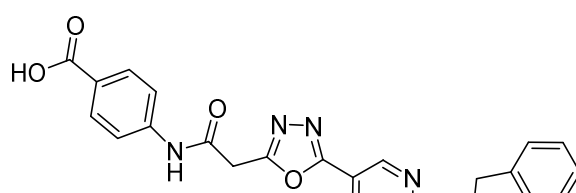
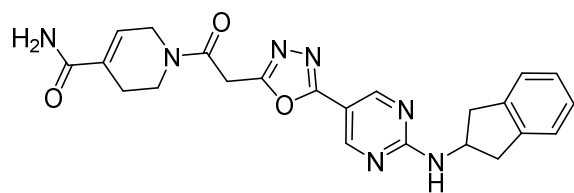
R^p is C6-C12 aryl; and

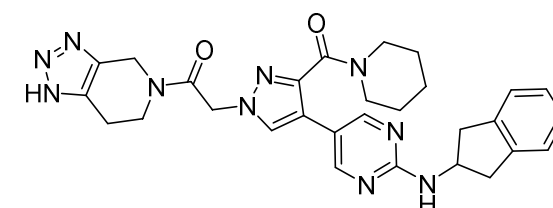
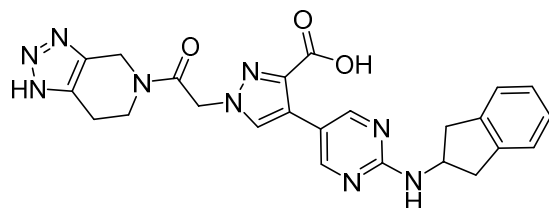
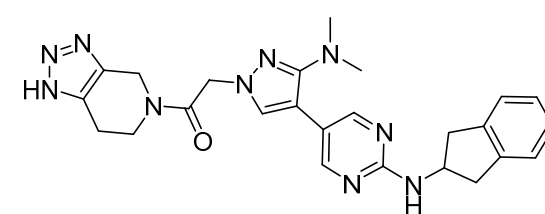
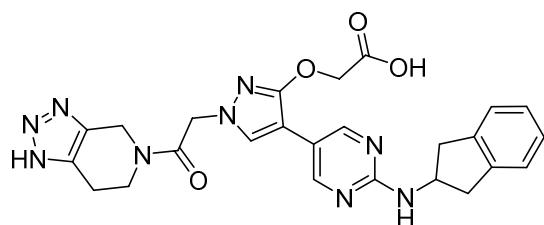
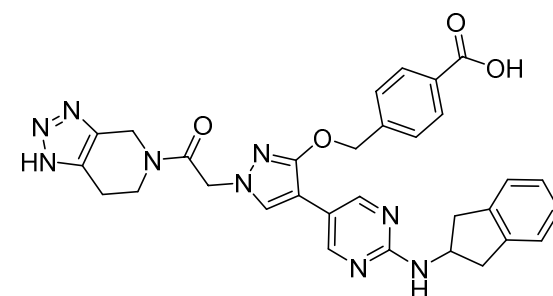
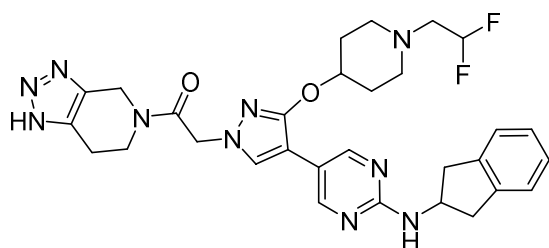
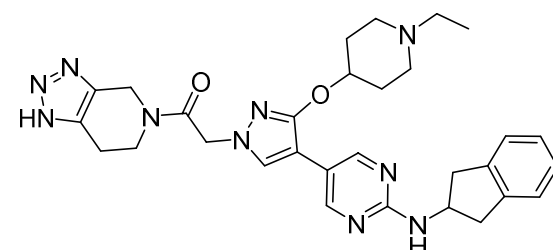
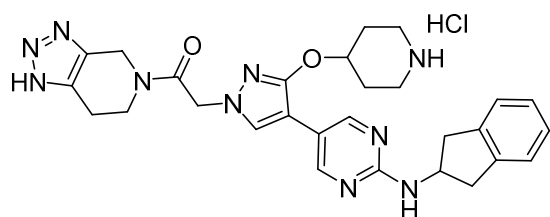
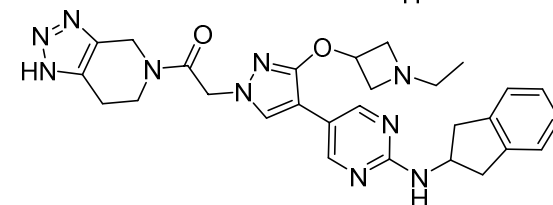
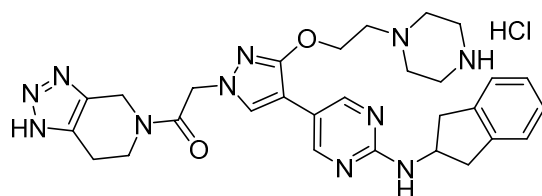
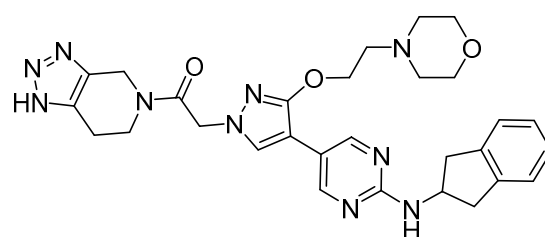
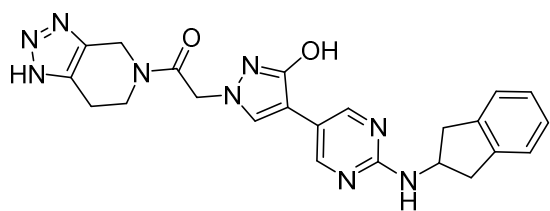
w is an integer of from 0 to 3.

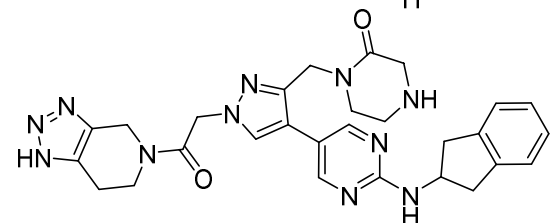
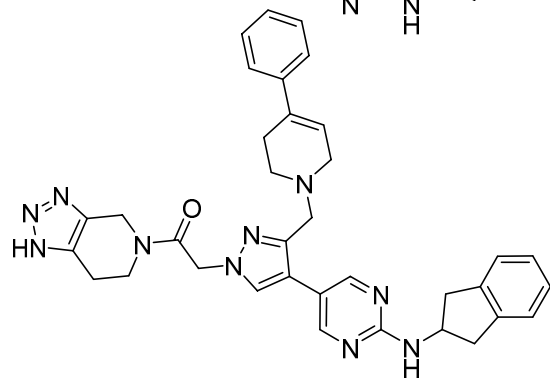
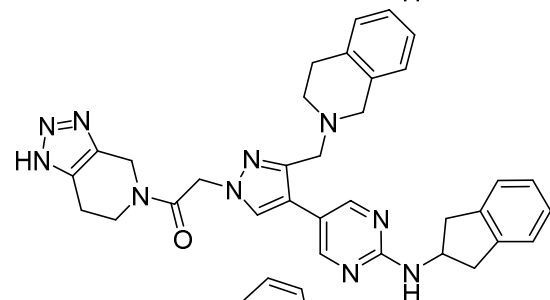
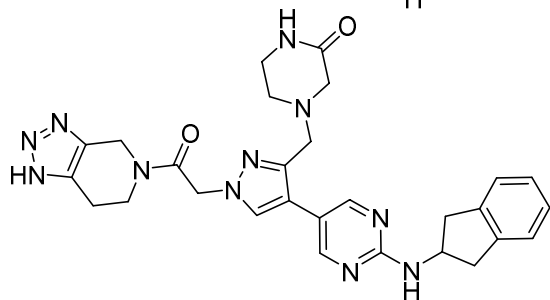
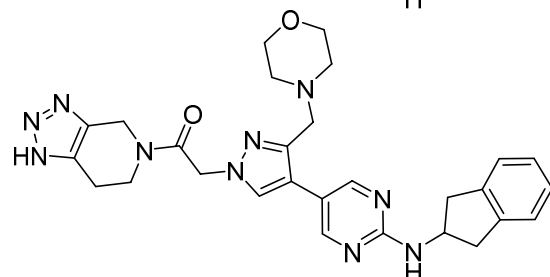
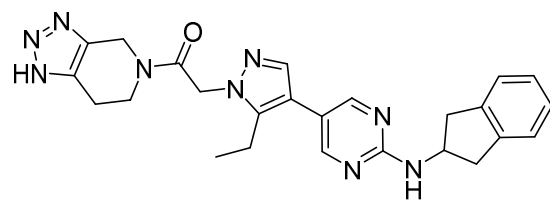
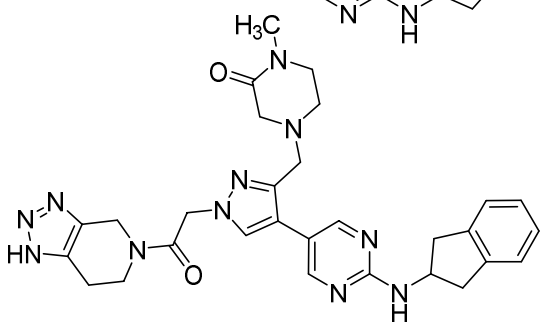
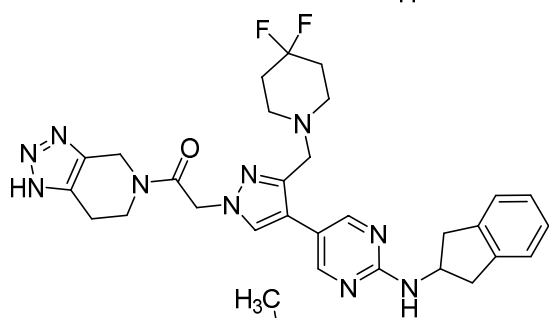
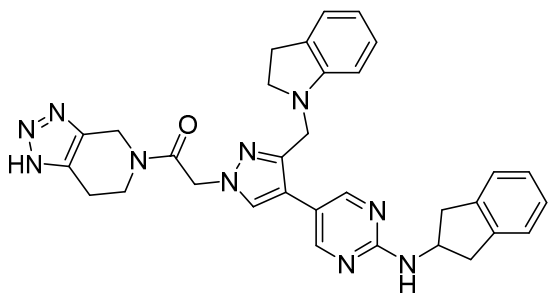
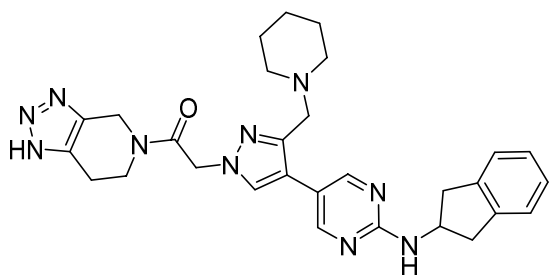
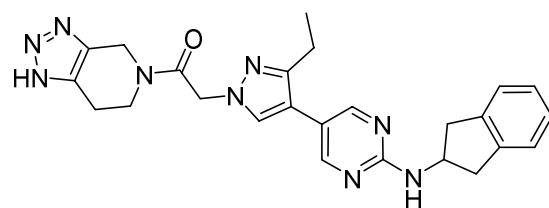
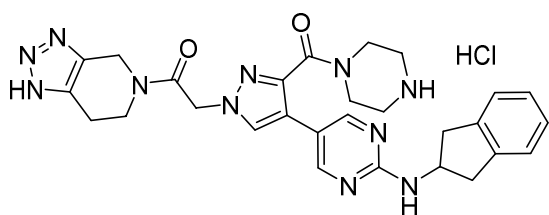
8. A compound, or a pharmaceutically acceptable salt thereof, wherein the compound is selected from compounds of the following structures:

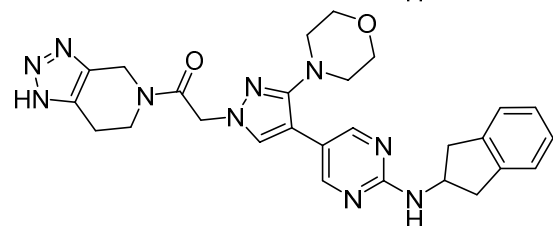
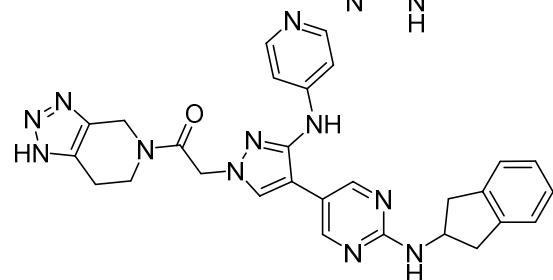
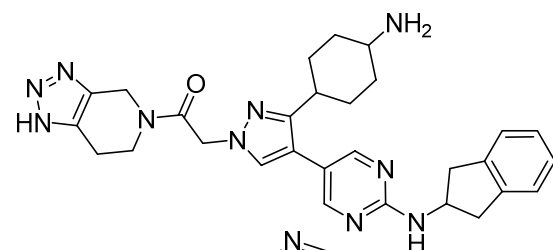
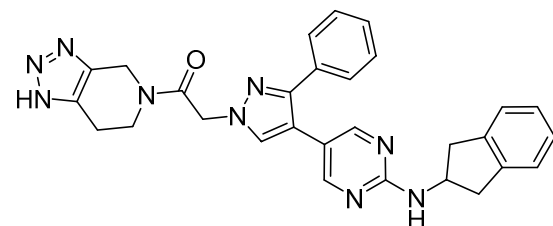
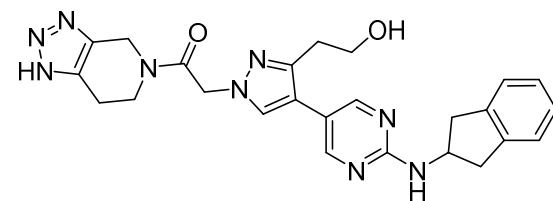
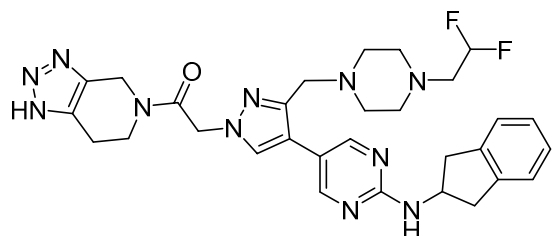
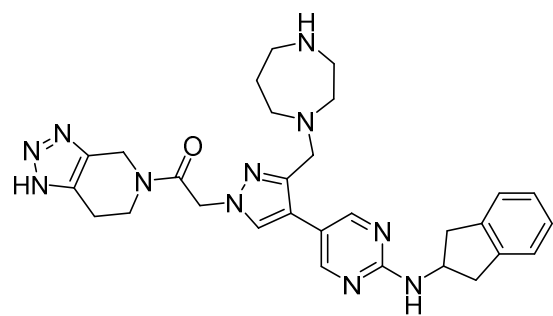


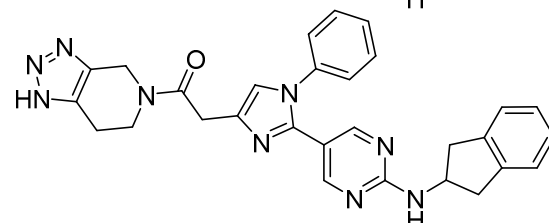
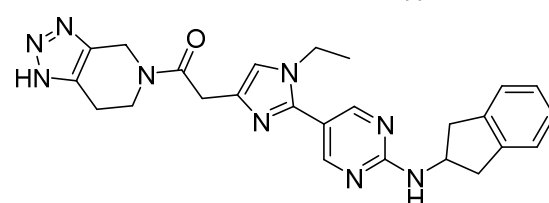
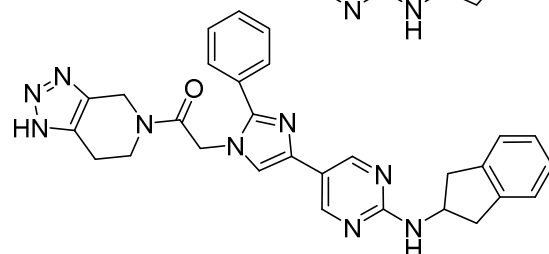
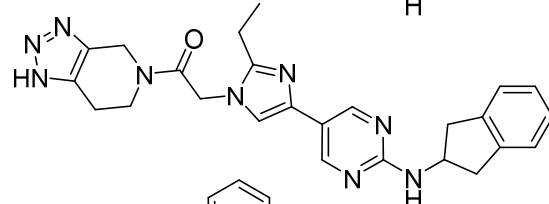
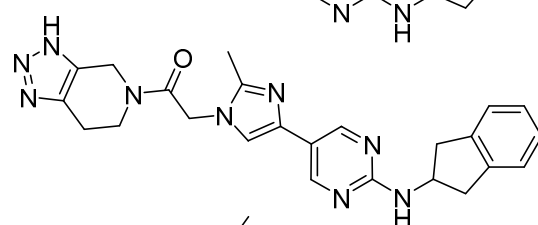
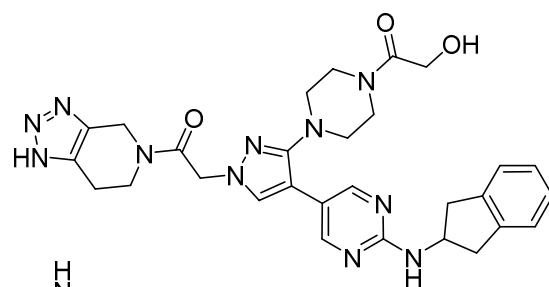
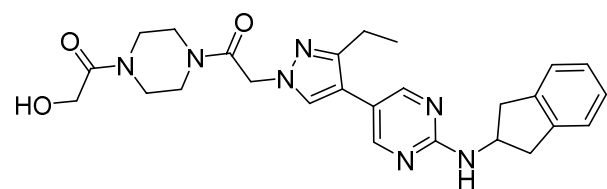
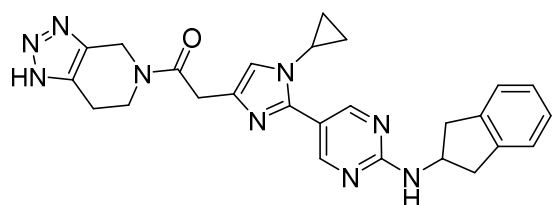
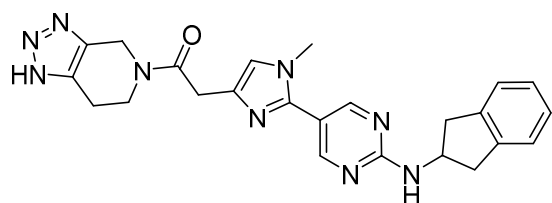
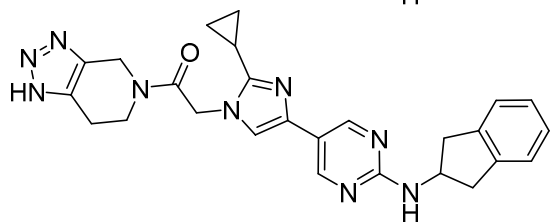
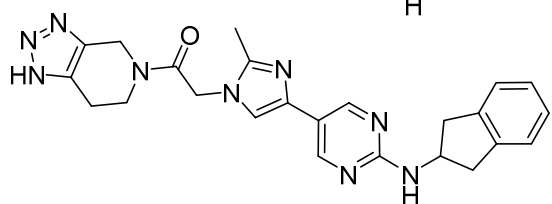
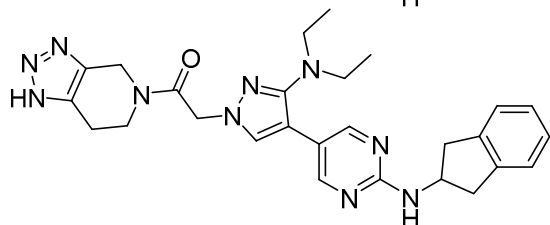
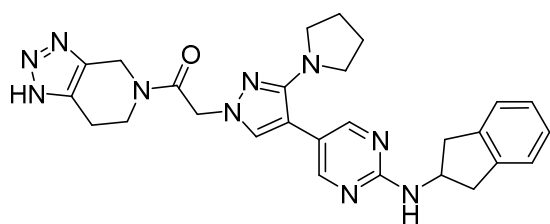


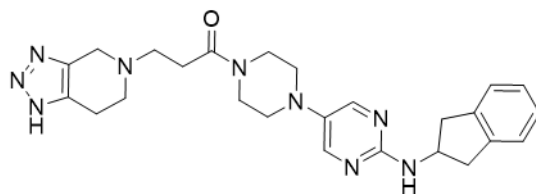
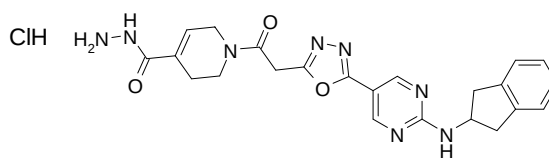
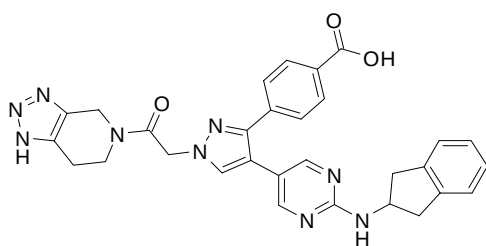
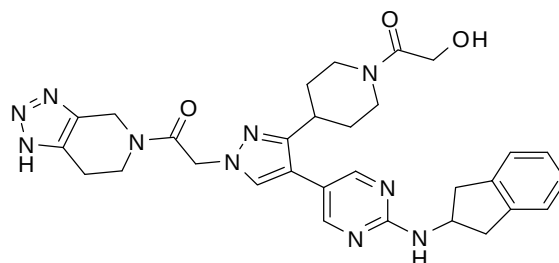
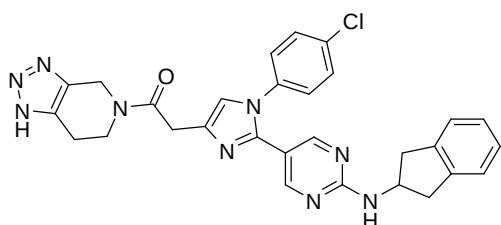
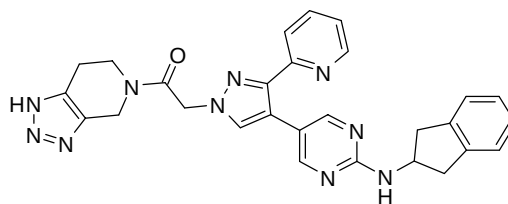
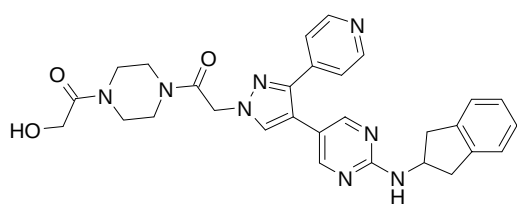




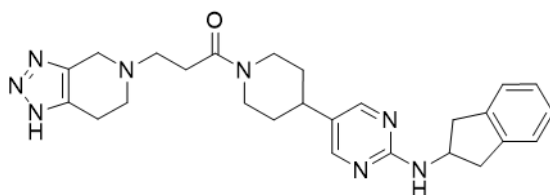




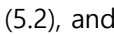




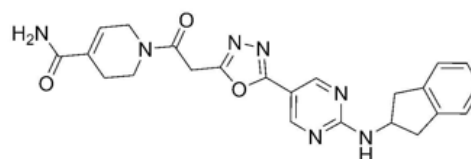
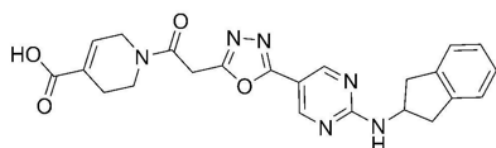
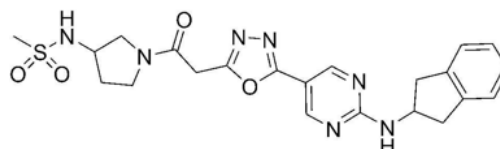
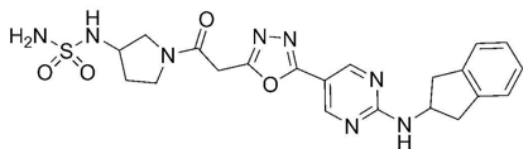
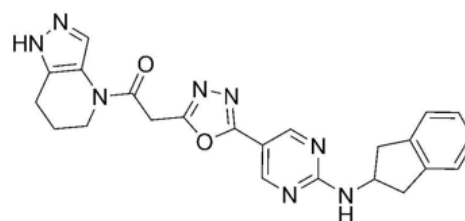
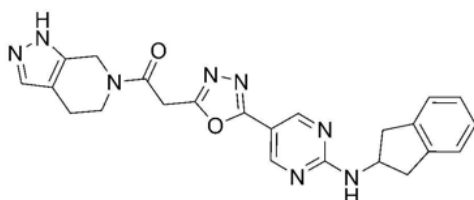
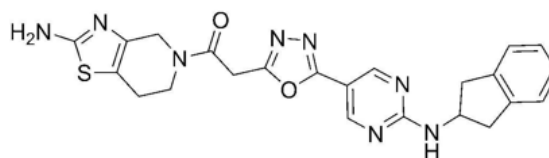
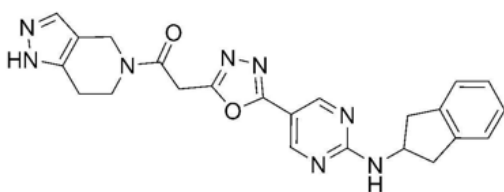
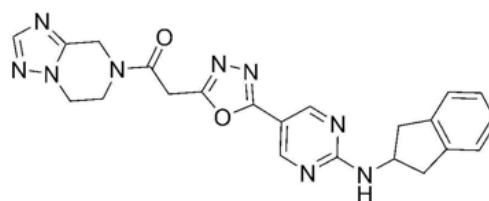
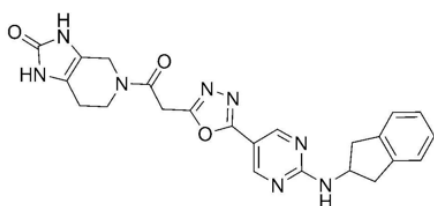
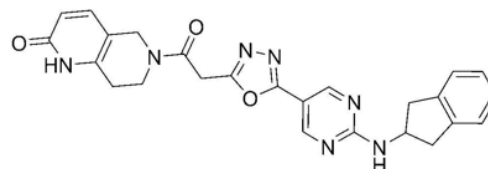
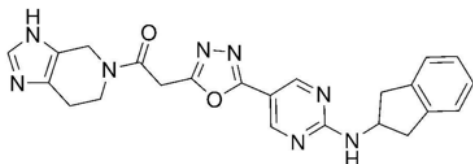
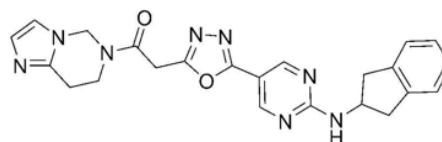
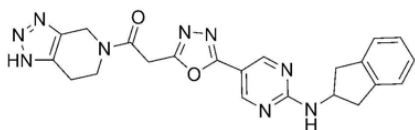
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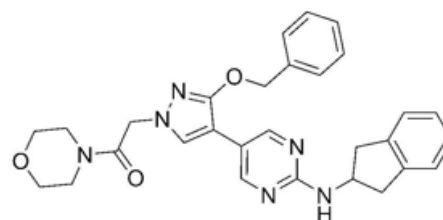
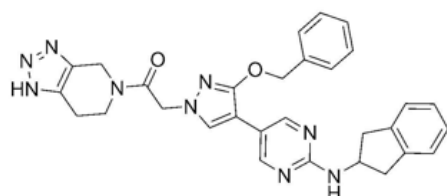
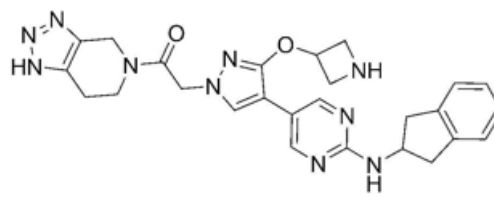
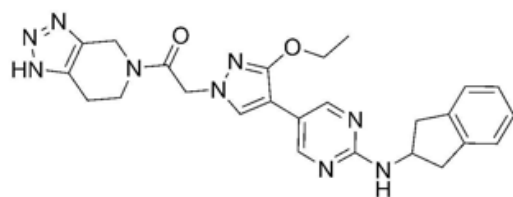
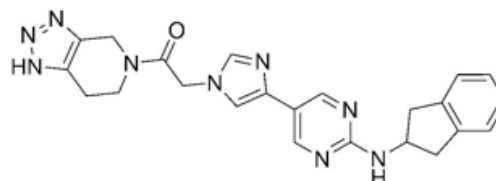
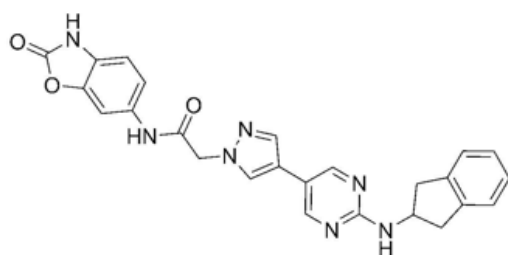
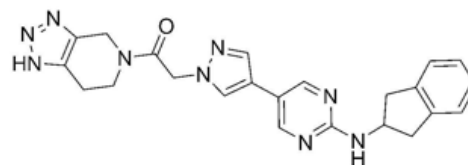
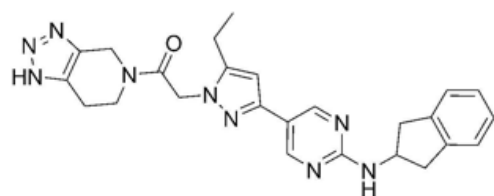
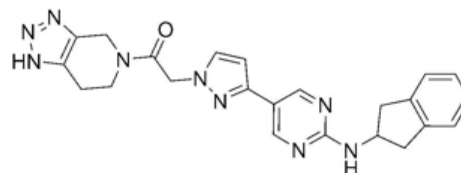
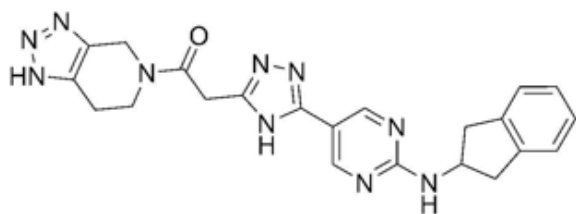
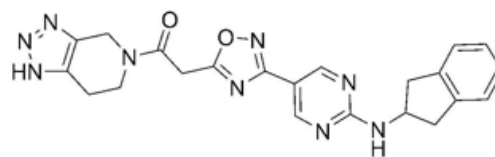
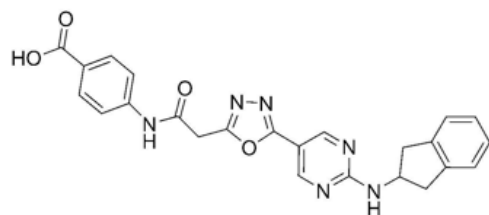


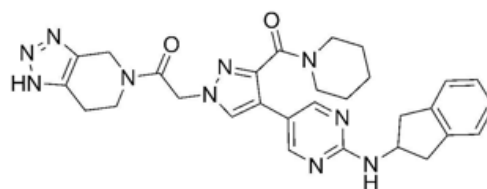
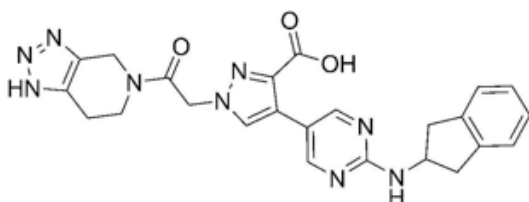
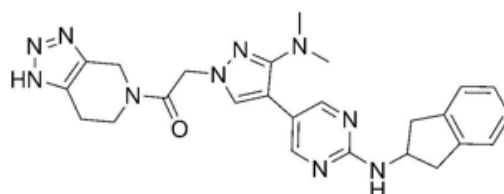
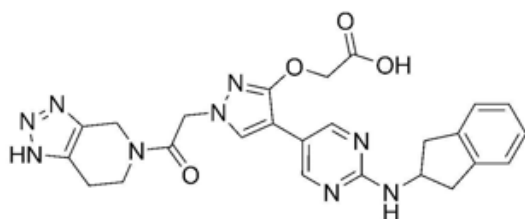
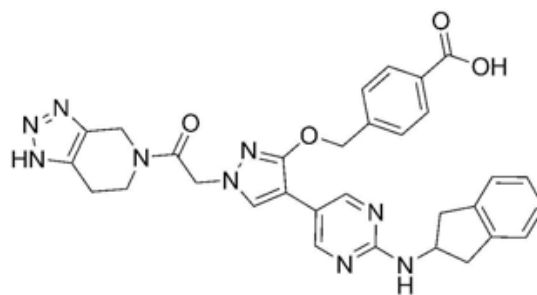
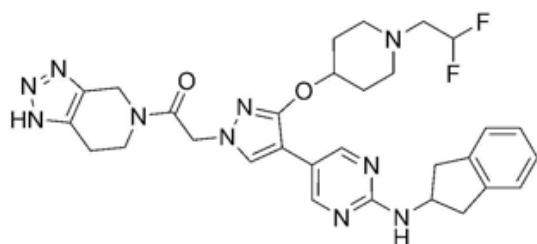
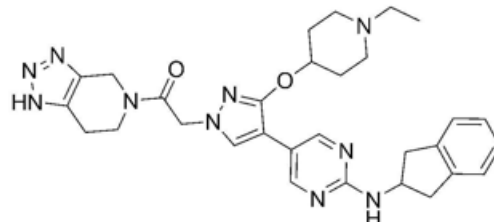
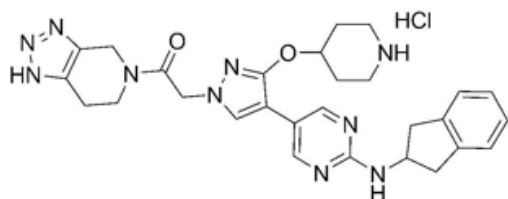
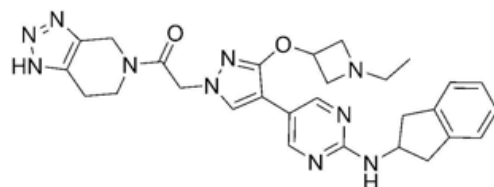
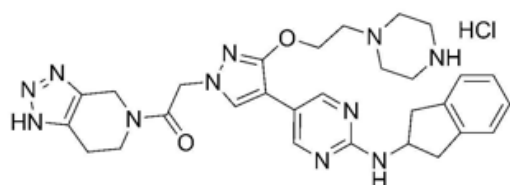
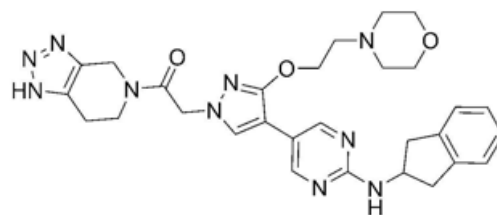
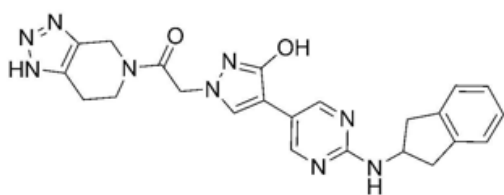
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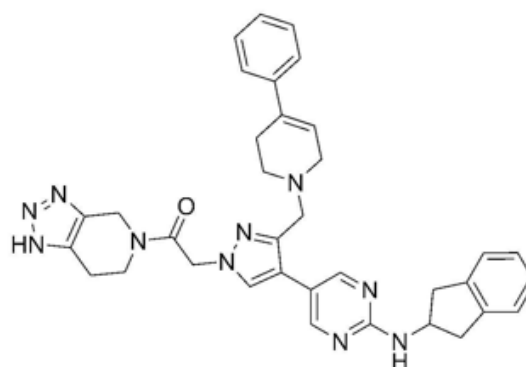
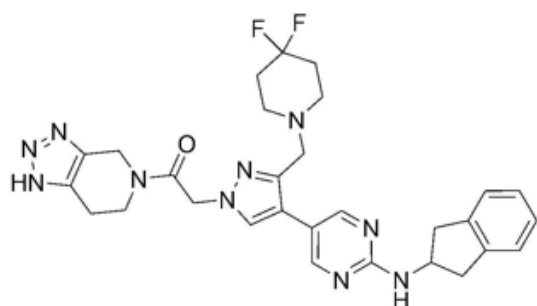
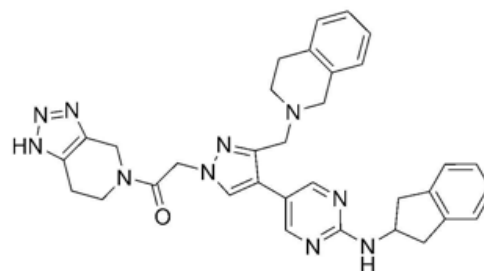
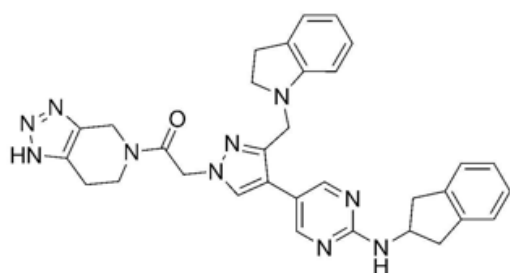
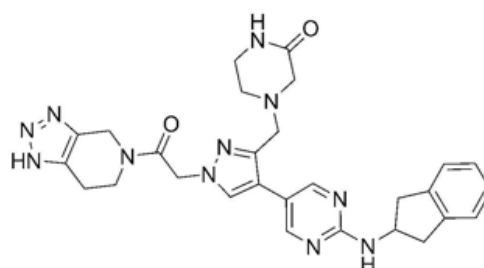
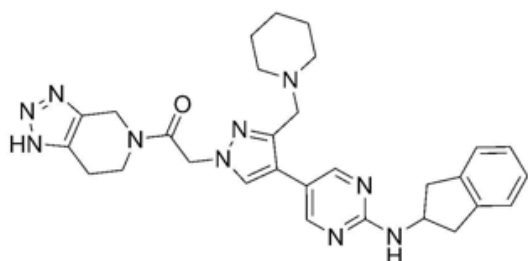
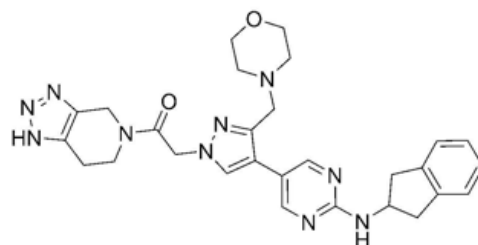
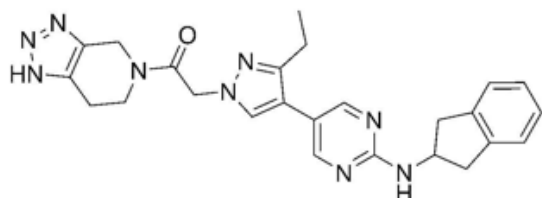
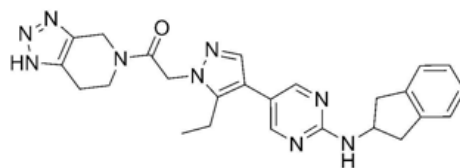


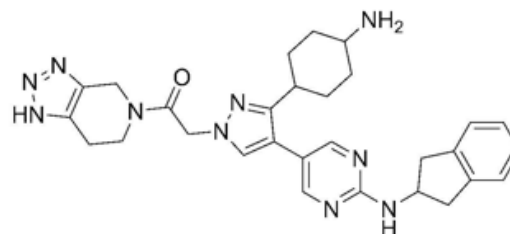
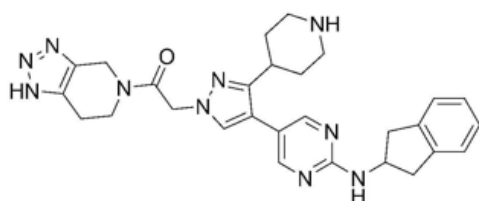
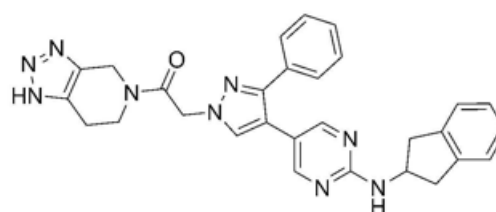
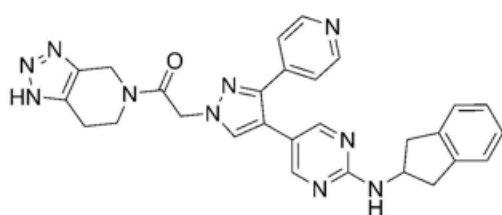
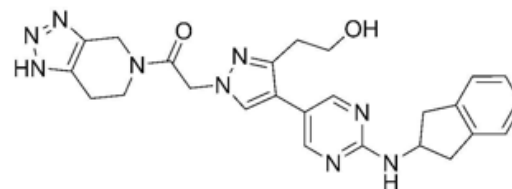
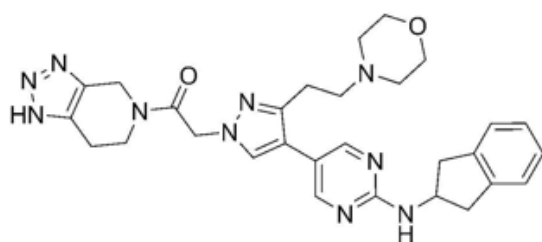
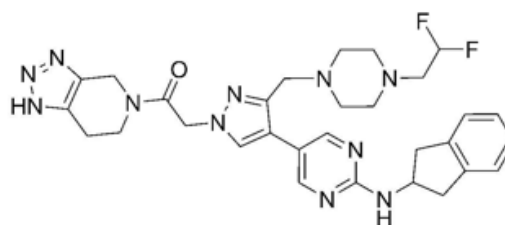
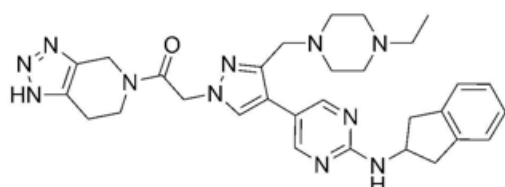
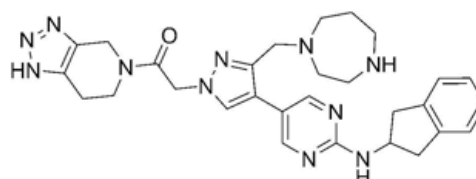
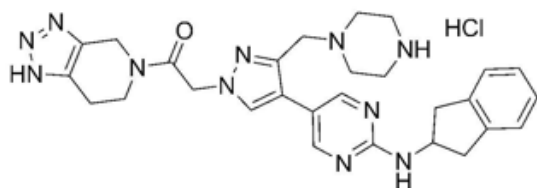
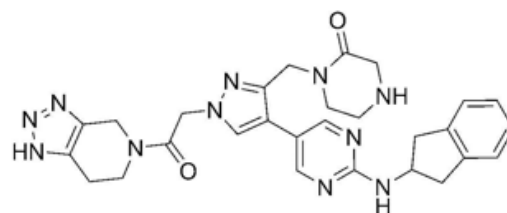
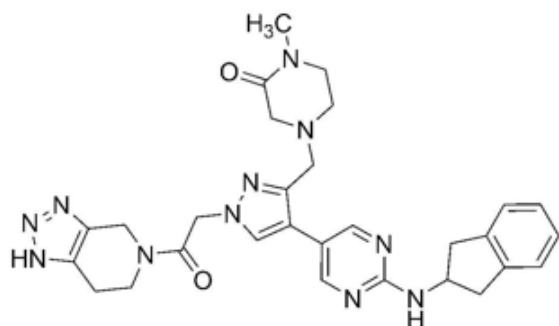
9. The compound according to Claim 8, or a pharmaceutically acceptable salt thereof, wherein the compound is selected from:

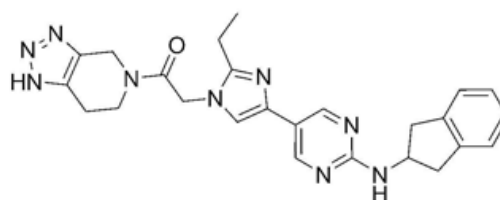
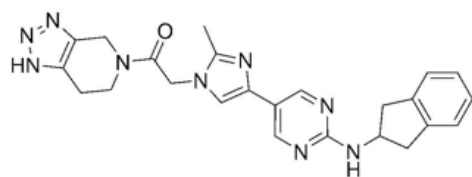
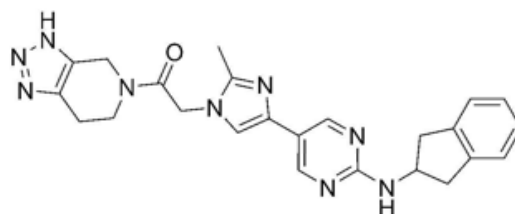
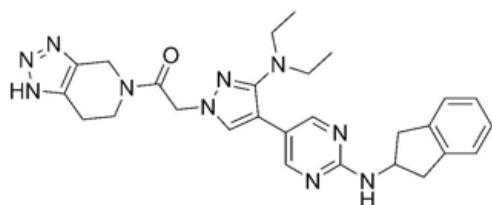
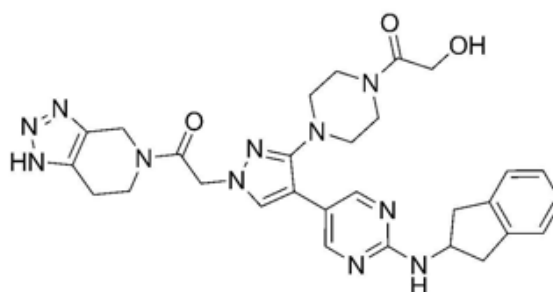
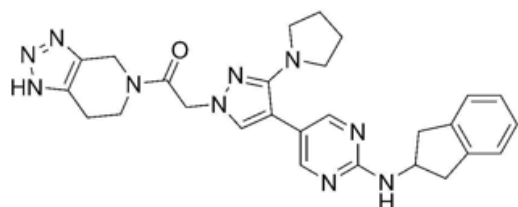
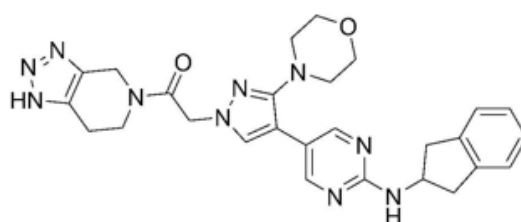
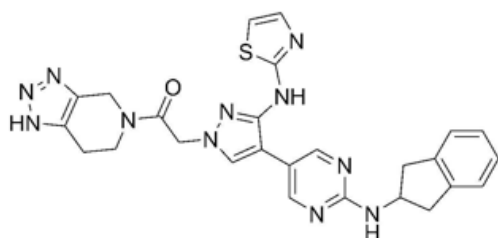
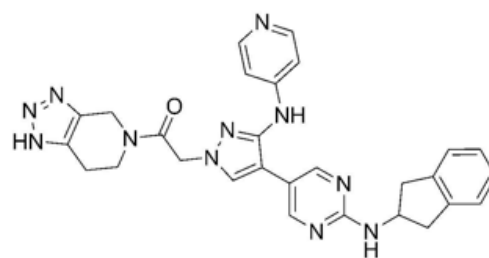
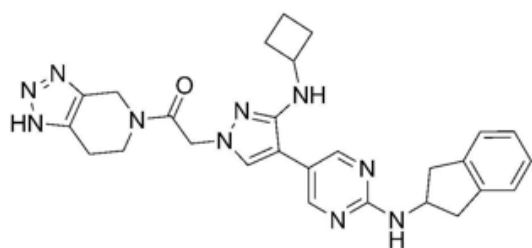


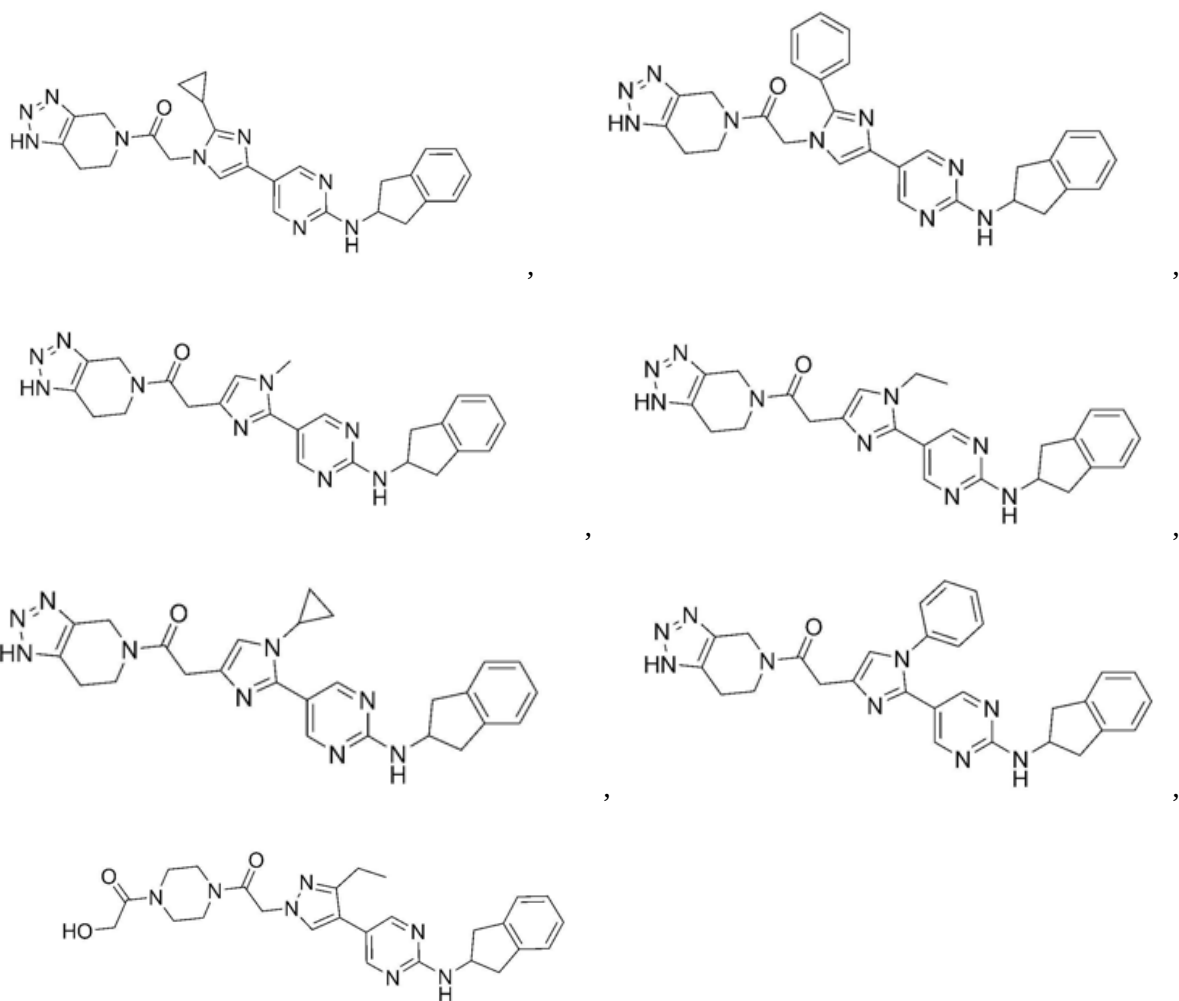






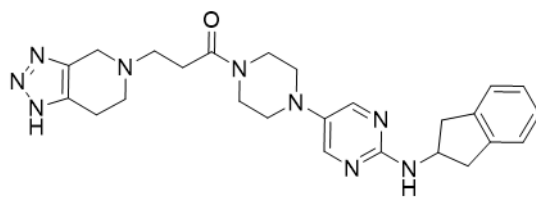






and

10. The compound according to claim 8, of formula 2.1



2.1

or a pharmaceutically acceptable salt thereof.

11. The compound according to claim 8, of formula 2.3

or a pharmaceutically acceptable salt thereof.

- CN1CC2=C(N1)N=CN=C2C(=O)N3CCN(C3)c4ncnc5c4Cc6ccccc65

or a pharmaceutically acceptable salt thereof.

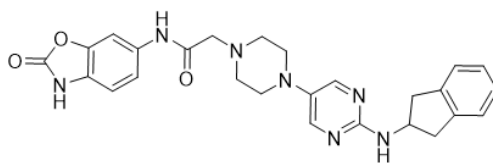
- C1=CC=C2C(=C1)C(=CN2)C1=CC=C(C=C1)N1C=NC(=C1)N2CCN(CC2)CC(=O)N3CCN(C3)c4c[nH]n4

or a pharmaceutically acceptable salt thereof.

- N#Nc1cc2c(c1)ncnc2C(=O)CN3CCCCC3c4cc5ncnc5n(C4)c6ccccc6

or a pharmaceutically acceptable salt thereof.

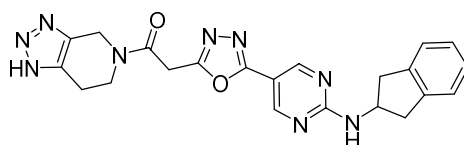
15. The compound according to claim 8, of formula 5.2



5.2

or a pharmaceutically acceptable salt thereof.

16. The compound according to claim 8, of formula 6.1



6.1

or a pharmaceutically acceptable salt thereof.

17. A pharmaceutical composition comprising the compound according to any one of Claims 1-16, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

18. A compound according to any one of Claims 1-16, or a pharmaceutically acceptable salt thereof, or the composition of Claim 17, for use in the prophylaxis or treatment of a disorder selected from the group consisting of cardiovascular disorder, cancer, obesity, diabetes mellitus, acute kidney failure, chronic kidney disease, diabetic nephropathy, acute kidney transplant rejection, chronic allograft nephropathy, liver cirrhosis, hepatic congestion, pruritus, nonalcoholic steatohepatitis, acute and chronic liver transplant rejection, arthritis, atopic dermatitis, asthma, neuropathic pain, schizophrenia, neuro-inflammation, peripheral neuropathy, autonomic neuropathy, systemic disease, vasculitides, sarcoidosis, hypersensitivity pneumonia, alveolar proteinosis, langerhans cell granulomatosis, lymphangioleiomyomatosis, radiation induced fibrosis, silicosis, asbestos induced pulmonary fibrosis, acute respiratory distress syndrome (ARDS), myocardial and vascular fibrosis, kidney fibrosis, liver fibrosis, pulmonary fibrosis, skin fibrosis, scleroderma, encapsulating peritonitis, renal tubulo-interstitial fibrosis, glomerulosclerosis, non-alcoholic liver steatosis, idiopathic pulmonary fibrosis, proliferative and non-proliferative retinopathy, dry and wet age-related macular

degeneration (AMD), macular edema, central arterial /venous occlusion, traumatic injury, glaucoma, chronic pruritus of cholestatic form, and acute or chronic organ transplant rejection.

19. Use of a compound according to any one of claims 1-16, or a pharmaceutically acceptable salt thereof, or a composition according to claim 17, in the manufacture of a medicament for the prophylaxis or treatment of a disorder selected from cardiovascular disorder, cancer, obesity, diabetes mellitus, acute kidney failure, chronic kidney disease, diabetic nephropathy, acute kidney transplant rejection, chronic allograft nephropathy, liver cirrhosis, hepatic congestion, pruritus, nonalcoholic steatohepatitis, acute and chronic liver transplant rejection, arthritis, atopic dermatitis, asthma, neuropathic pain, schizophrenia, neuro-inflammation, peripheral neuropathy, autonomic neuropathy, systemic disease, vasculitides, sarcoidosis, hypersensitivity pneumonia, alveolar proteinosis, langerhans cell granulomatosis, lymphangiomyomatosis, radiation induced fibrosis, silicosis, asbestos induced pulmonary fibrosis, acute respiratory distress syndrome (ARDS), myocardial and vascular fibrosis, kidney fibrosis, liver fibrosis, pulmonary fibrosis, skin fibrosis, scleroderma, encapsulating peritonitis, renal tubulo-interstitial fibrosis, glomerulosclerosis, non-alcoholic liver steatosis, idiopathic pulmonary fibrosis, proliferative and non-proliferative retinopathy, dry and wet age-related macular degeneration (AMD), macular edema, central arterial/venous occlusion, traumatic injury, glaucoma, chronic pruritus of cholestatic form, and acute or chronic organ transplant rejection.