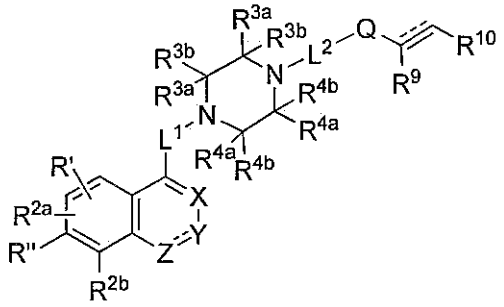
CLAIMS

1. A compound having the following structure (I):



(I)

or a pharmaceutically acceptable salt, tautomer, or stereoisomer thereof, wherein:

$\equiv$ represents a double or triple bond;

Q is –C(=O)-, -C(=NR$^{8'}$)-, –NR^{8}C(=O)-, –S(=O)$_2$- or – NR^{8}S(=O)$_2$-;

Y is CR^6;

X is N;

Z is N;

L^1 is a bond;

L^2 is a bond or alkylene;

R′ is R^1 and R″ is R^{2c}; or R′ is H and R″ is R^1;

R^1 is heterocyclyl, heteroaryl or aryl;

R^{2a}, R^{2b} and R^{2c} are each independently H, halo, -OH, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_3-C_8 cycloalkyl, heteroaryl or aryl;

R^{3a} and R^{3b} are, at each occurrence, independently H, -OH, -NH$_2$, -CO$_2$H, halo, cyano, C_1-C_6 alkyl, C_2-C_6 alkynyl, hydroxyalkyl, aminylalkyl, alkylaminylalkyl, cyanoalkyl, carboxyalkyl, aminylcarbonylalkyl or aminylcarbonyl;

R^{4a} and R^{4b} are, at each occurrence, independently H, -OH, -NH$_2$, -CO$_2$H, halo, cyano, C_1-C_6 alkyl, C_2-C_6 alkynyl, hydroxyalkyl, aminylalkyl, alkylaminylalkyl, cyanoalkyl, carboxyalkyl, aminylcarbonylalkyl or aminylcarbonyl;

R^6 is H, cyano, cyanoalkyl, amino, aminylalkyl, aminylalkylaminyl, aminylcarbonyl, aminylsulfonyl, - CO$_2$NR^{a}R^b, alkylaminyl, haloalkylaminyl, hydroxyalkylaminyl, amidinylalkyl, amidinylalkoxy, amidinylalkylaminyl, guanidinylalkyl, guanidinylalkoxy, guanidinylalkylaminyl, C_1-C_6 alkoxy, aminylalkoxy, alkylaminylalkoxy, alkylcarbonylaminylalkoxy, C_1-C_6 alkyl, heterocyclyl, heterocyclyloxy, heterocyclylalkyloxy, heterocyclylaminyl, heterocyclylalkylaminyl, heteroaryl, heteroaryloxy, heteroarylalkyloxy,

heteroarylaminyl, heteroarylalkylaminyl, aryl, aryloxy, arylaminyl, arylalkylaminyl or arylalkyloxy;

R^a and R^b are each independently H or C_1-C_6 alkyl; or

R^a and R^b join to form a carbocyclic or heterocyclic ring;

R^8 is H, C_1-C_6 alkyl or hydroxyalkyl;

$R^{8'}$ is H, -OH, cyano or C_1-C_6 alkyl;

⎓ indicates a double bond;

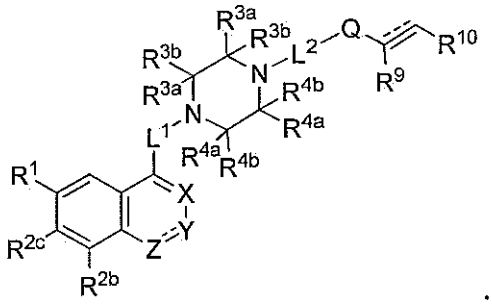
when ⎓ is a double bond then R^9 and R^{10} are each independently H, cyano, carboxy, C_1-C_6 alkyl, alkoxycarbonyl, aminylalkyl, alkylaminylalkyl, heteroaryl or hydroxyalkyl or R^9 and R^{10} join to form a carbocyclic or heterocyclic ring; and

when ⎓ is a triple bond then R^9 is absent and R^{10} is H, C_1-C_6 alkyl, aminylalkyl, alkylaminylalkyl or hydroxyalkyl,

provided that at least one of R^{2a}, R^{2b} or R^{2c} is not H when R^1 is pyridyl, and

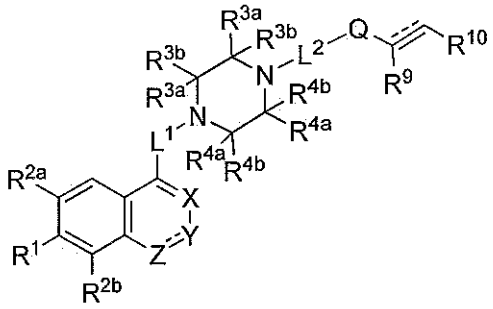
wherein each alkylene, heterocyclyl, heteroaryl, aryl, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, alkoxycarbonyl, C_3-C_8 cycloalkyl, C_2-C_6 alkynyl, hydroxyalkyl, aminylalkyl, alkylaminylalkyl, cyanoalkyl, carboxyalkyl, aminylcarbonylalkyl, aminylcarbonyl, aminylalkylaminyl, aminylcarbonyl, aminylsulfonyl, carbocyclic ring, heterocyclic ring, alkylaminyl, haloalkylaminyl, hydroxyalkylaminyl, amidinylalkyl, amidinylalkoxy, amidinylalkylaminyl, quanidinylalkyl, guanidinylalkoxy, guanidinylalkylaminyl, aminylalkoxy, alkylaminylalkoxy, alkylcarbonylaminylalkoxy, heterocyclyloxy, heterocyclylalkyloxy, heterocyclylaminyl, heterocyclylalkylaminyl, heteroaryloxy, heteroarylalkyloxy, heteroarylaminyl, heteroarylalkylaminyl, aryloxy, arylaminyl, arylalkylaminyl and arylalkyloxy is optionally substituted with one or more substituents selected from the group consisting of aminyl, cyano, hydroxy, imino, nitro, oxo, thioxo, halo, aminylsulfonyl, aminylcarbonyl, C_1-C_{12} alkyl, C_1-C_6 alkylaminylcarbonyl, aminylcarbonylC_1-C_6 alkyl, C_1-C_{12} haloalkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_1-C_6 alkoxyalkyl, C_1-C_6 haloalkoxyalkyl, cyanoC_1-C_6 alkyl, C_1-C_6 alkylcycloalkyl, C_1-C_6 alkylheterocycloalkyl, C_2-C_6 alkynyl, C_1-C_6 alkylaminyl, C_1-C_6 alkylcarbonylaminyl, C_1-C_6 hydroxyalkyl, C_2-C_6 alkenylcarbonylaminyl, C_1-C_6 thioalkyl, aryl, aralkyl, C_3-C_8 cycloalkyl optionally substituted with cyano, C_3-C_8 cycloalkylalkyl, aminylcarbonylC_3-C_8 cycloalkyl, C_3-C_8 cycloalkylaminylcarbonyl, C_3-C_8 fused cycloalkyl, heterocyclyl, *N*-heterocyclyl, heterocyclylalkyl, heteroaryl, *N*-heteroaryl and heteroarylalkyl.

2. The compound of claim 1, wherein the compound has the following structure (I'f):



(I'f)

3. The compound of claim 1, wherein the compound has the following structure (I'j):



(I'j)

4. The compound of claim 1, wherein L^2 is a bond.

5. The compound of claim 1, wherein R^1 is optionally substituted aryl.

6. The compound of claim 5, wherein R^1 is substituted with one or more substituents.

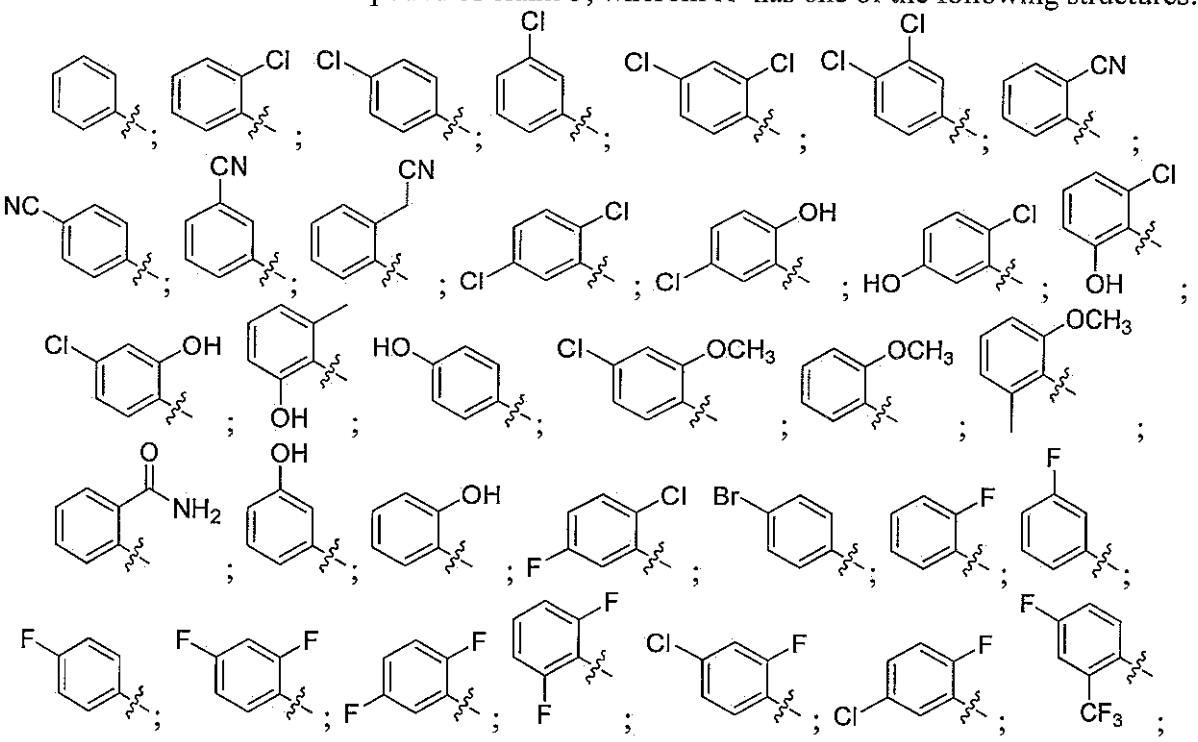
7. The compound of claim 6, wherein the substituents are selected from the group consisting of halo, cyano, cyanoC_1-C_6 alkyl, cyanoC_3-C_8 cycloalkyl, hydroxy, C_1-C_6 alkyl, C_1-C_6 alkylcycloalkyl, C_2-C_6 alkynyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_1-C_6 alkylaminyl, C_1-C_6 alkylcarbonylaminyl, C_1-C_6 hydroxyalkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxyalkyl, aminylsulfonyl, aminylcarbonyl, aminylcarbonylC_1-C_6 alkyl, aminylcarbonylC_3-C_8 cycloalkyl, C_1-C_6 alkylaminylcarbonyl, C_3-C_8 cycloalkylaminylcarbonyl, C_3-C_8 cycloalkylalkyl, C_3-C_8 cycloalkyl, C_3-C_8 fused cycloalkyl and heteroaryl.

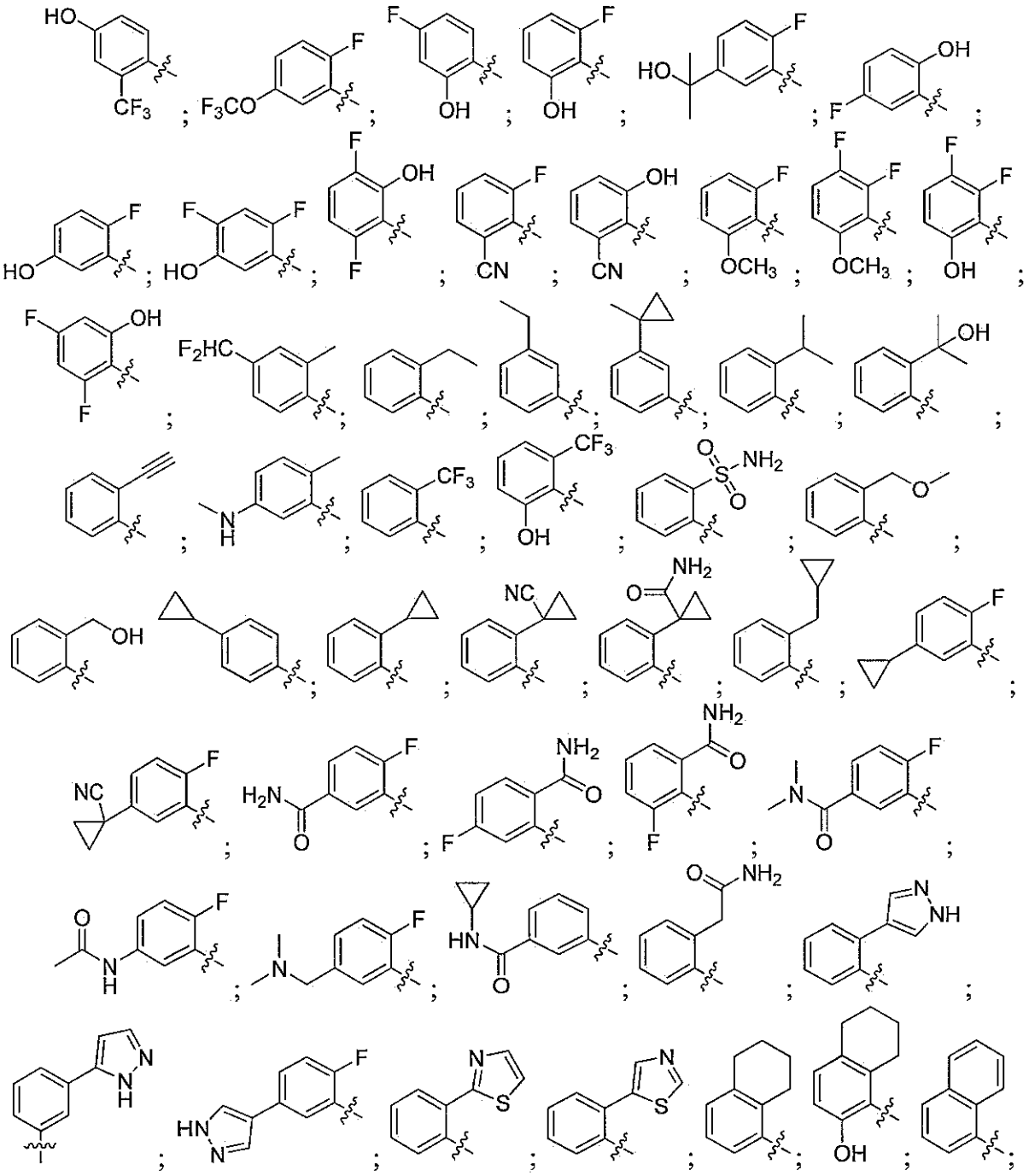
8. The compound of claim 7, wherein the substituents are selected from the group consisting of fluoro, chloro, bromo, cyano, hydroxy, hydroxymethyl, methoxy, methoxymethyl, methyl, ethyl, isopropyl, difluoromethyl, trifluoromethyl, aminylcarbonyl and cyclopropyl.

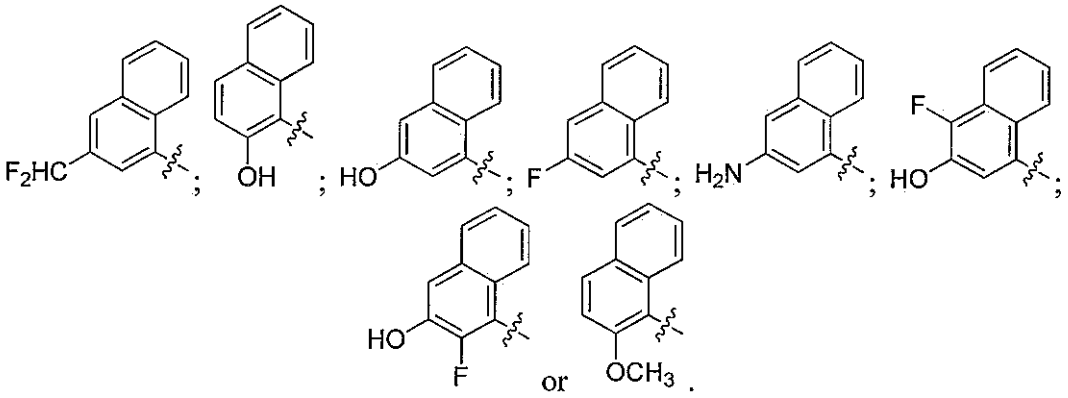
9. The compound of claim 1, wherein R^1 is aryl substituted with one or more substituents selected from the group consisting of halo, cyano, cyanoC_1-C_6 alkyl, cyanoC_3-C_8 cycloalkyl, hydroxy, C_1-C_6 alkyl, C_1-C_6 alkylcycloalkyl, C_2-C_6 alkynyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_1-C_6 alkylaminyl, C_1-C_6 alkylcarbonylaminyl, C_1-C_6 hydroxyalkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxyalkyl, aminylsulfonyl, aminylcarbonyl, aminylcarbonylC_1-C_6 alkyl, aminylcarbonylC_3-C_8 cycloalkyl, C_1-C_6 alkylaminylcarbonyl, C_3-C_8 cycloalkylaminylcarbonyl, C_3-C_8 cycloalkylalkyl, C_3-C_8 cycloalkyl, C_3-C_8 fused cycloalkyl and heteroaryl, and each of R^a, R^b, R^{2a}, R^{2b}, R^{2c}, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^6, R^8, $R^{8'}$, R^9, R^{10} and L^2 are unsubstituted.

10. The compound of claim 5, wherein R^1 is phenyl.

11. The compound of claim 5, wherein R^1 has one of the following structures:







12. The compound of claim 1, wherein R^1 is optionally substituted heterocyclyl or optionally substituted heteroaryl.

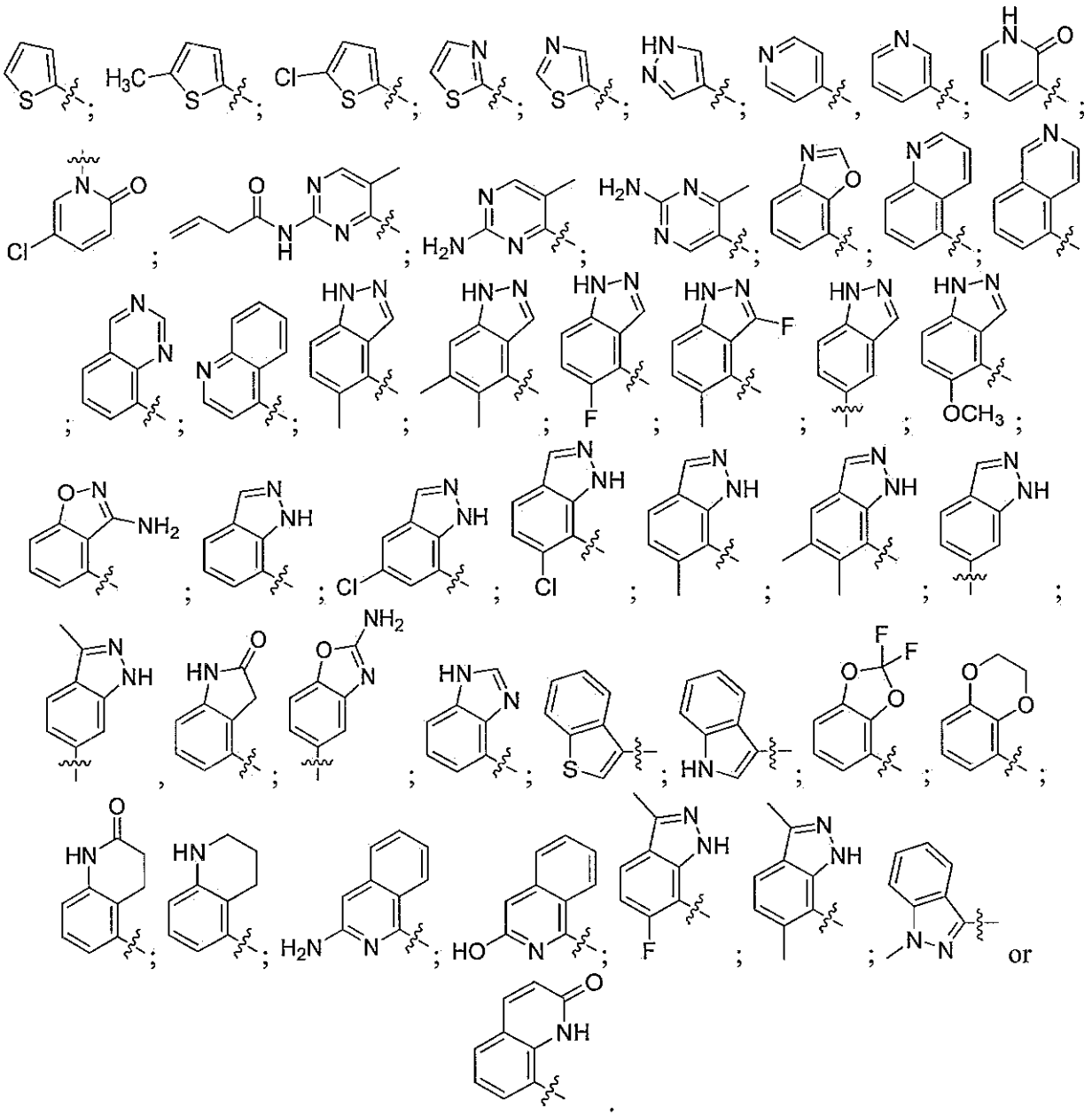
13. The compound of claim 12, wherein R^1 is substituted with one or more substituents.14. The compound of claim 13, wherein the substituents are selected from the group consisting of halo, C_1-C_6 alkyl, C_1-C_6 alkoxy and C_2-C_6 alkenylcarbonylaminyl.

15. The compound of claim 13, wherein the substituents are selected from the group consisting of fluoro, chloro, amino and methyl.

16. The compound of claim 1, wherein R^1 is heteroaryl substituted with one or more substituents selected from the group consisting of halo, C_1-C_6 alkyl, C_1-C_6 alkoxy and C_2-C_6 alkenylcarbonylaminyl, and each of R^a, R^b, R^{2a}, R^{2b}, R^{2c}, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^6, R^8, $R^{8'}$, R^9, R^{10} and L^2 are unsubstituted.

17. The compound of claim 12, wherein R^1 is thiophenyl, pyridinyl, pyridinonyl, pyrimidinyl, benzooxazolyl, benzoisoxazolyl, benzodioxazolyl, benzoimidazolyl, quinolinyl, quinolinonyl, dihydroquinolinonyl, tetrahydroquinolinyl, quinazolinyl, indazolyl, indolinonyl, benzothiophenyl or dihydrobenzodioxinyl.

18. The compound of claim 12, wherein R^1 has one of the following structures:



19. The compound of claim 1, wherein R^{2a} is halo.

20. The compound of claim 19, wherein R^{2a} is chloro or fluoro.

21. The compound of claim 1, wherein R^{2b} is halo.

22. The compound of claim 21, wherein R^{2b} is chloro or fluoro.

23. The compound of claim 1, wherein R^{3a}, R^{3b}, R^{4a} and R^{4b} are each independently H.

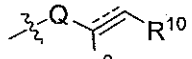
24. The compound of claim 1, wherein R^6 is heterocyclylaminyl.

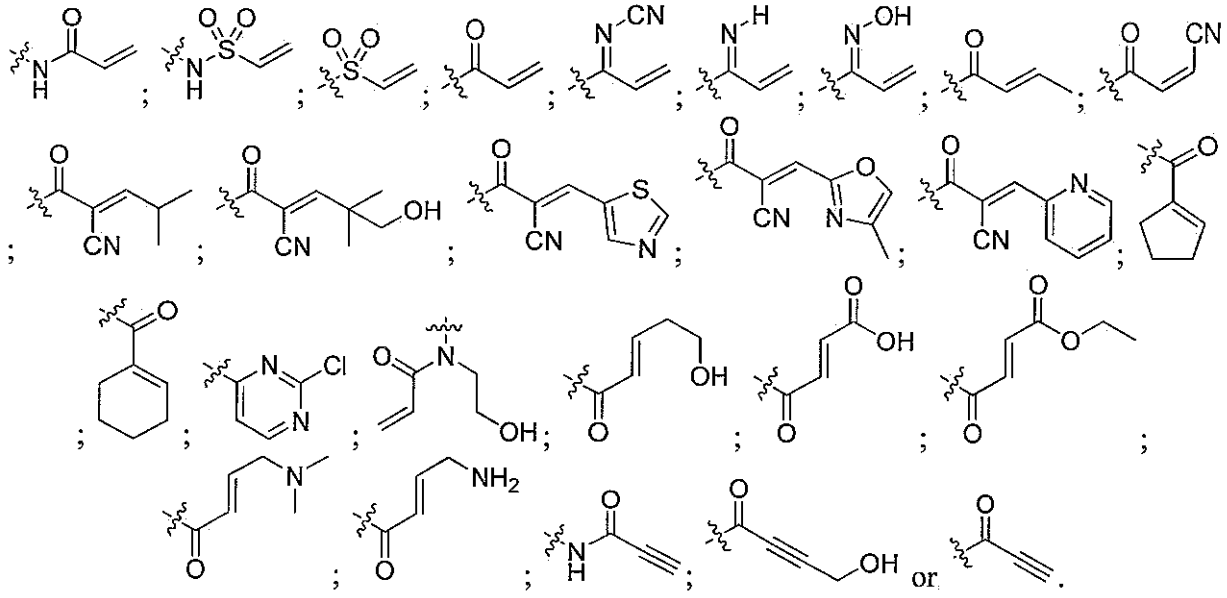
25. The compound of claim 1, wherein R^6 is H.

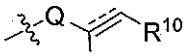
26. The compound of claim 1, wherein Q is –C(=O)-.

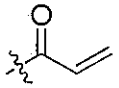
27. The compound of claim 1, wherein at least one of R^9 or R^{10} is H.

28. The compound of claim 27, wherein each of R^9 and R^{10} are H.

29. The compound of claim 1, wherein  has one of the following structures:

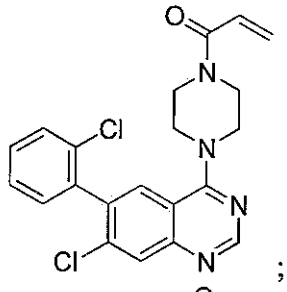
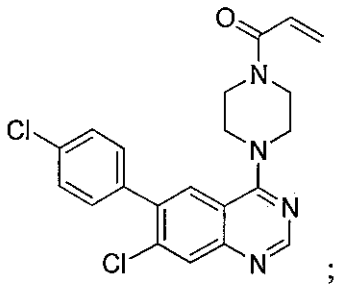
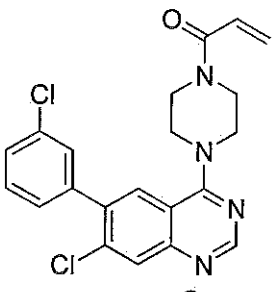
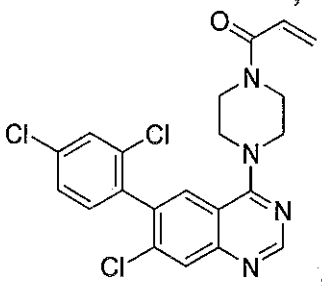
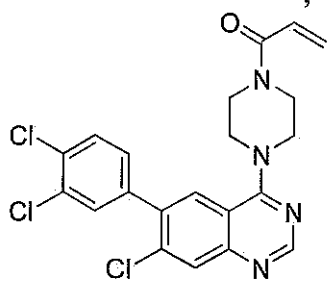
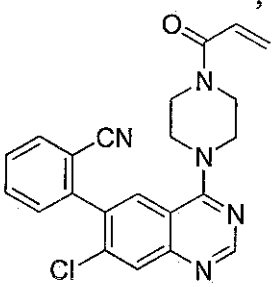
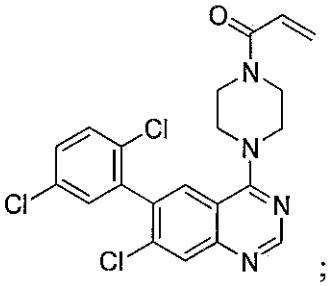
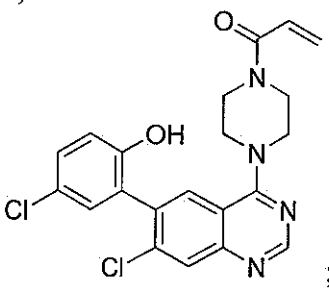
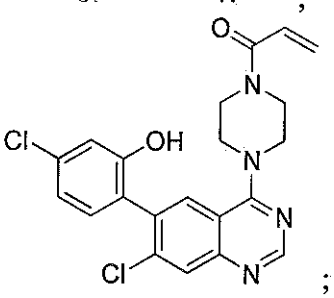


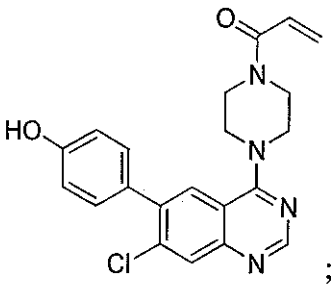
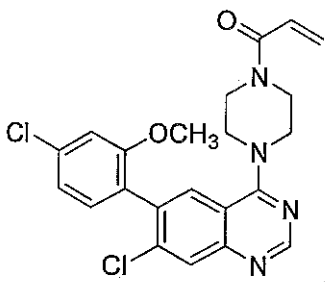
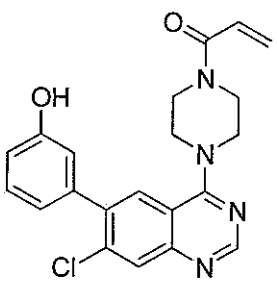
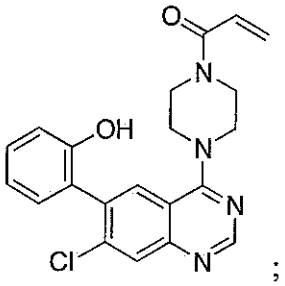
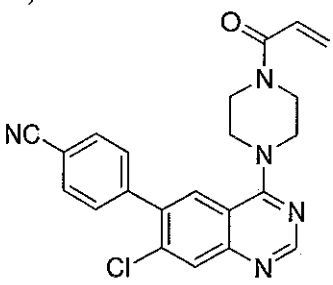
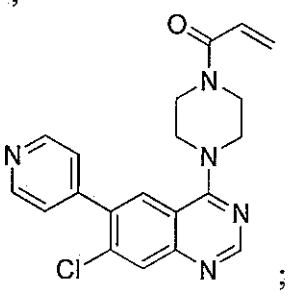
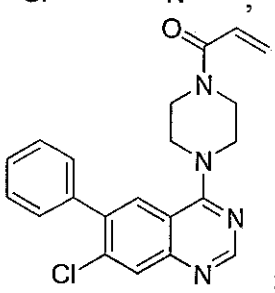
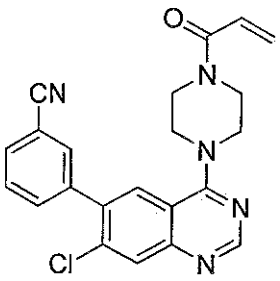
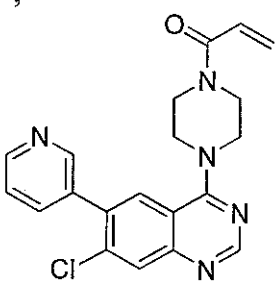
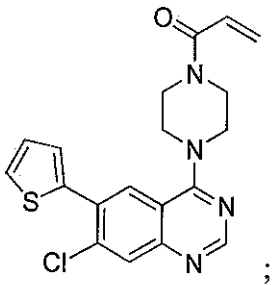
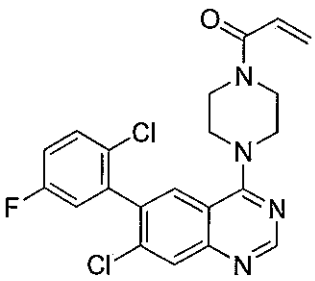
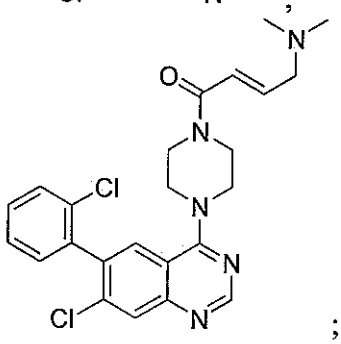
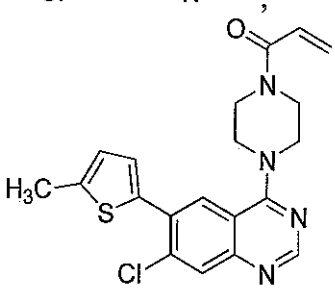
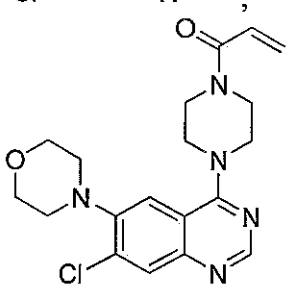
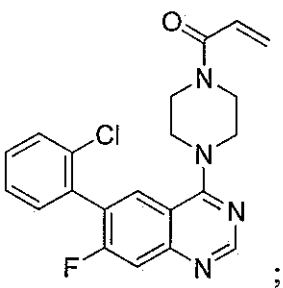
30. The compound of claim 1, wherein  has the following structure:

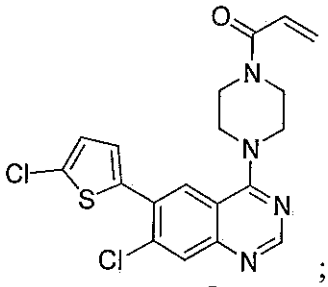
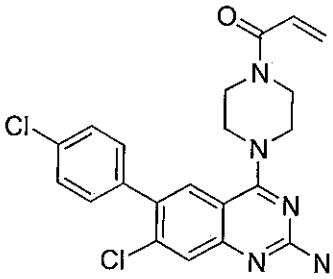
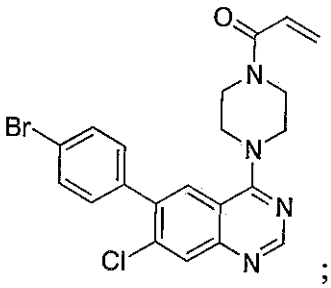
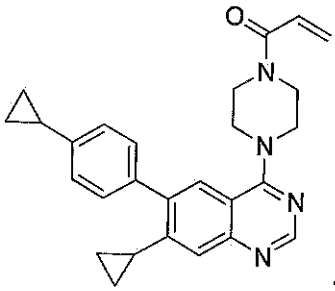
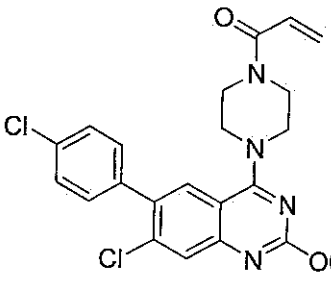
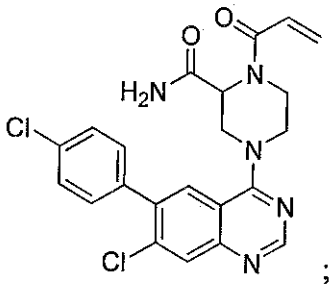
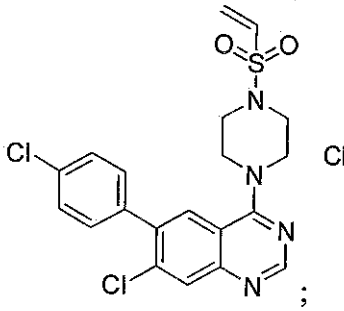
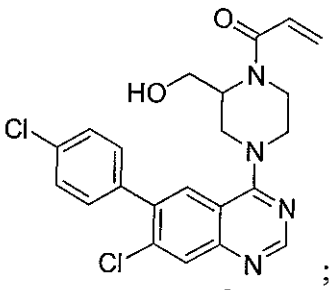
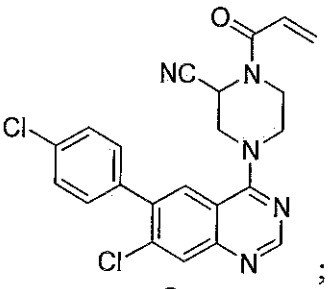
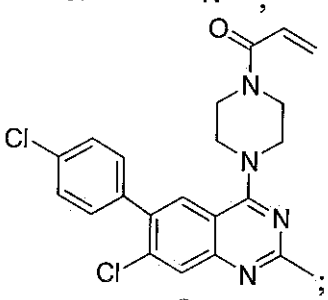
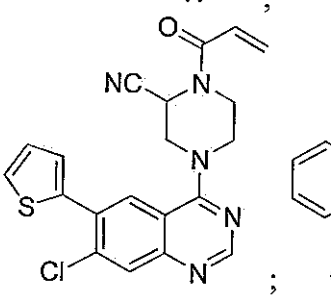
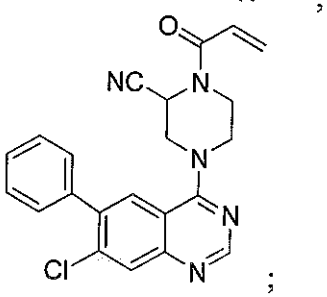
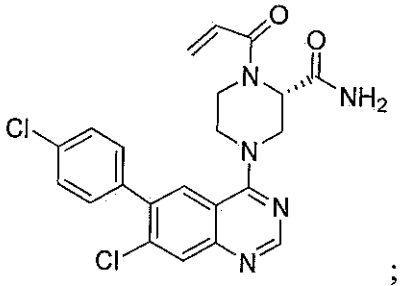
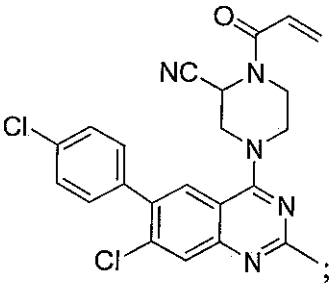
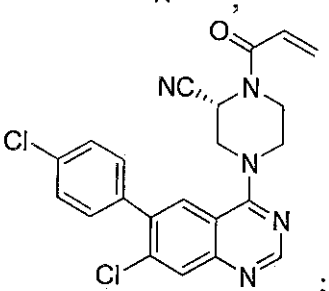


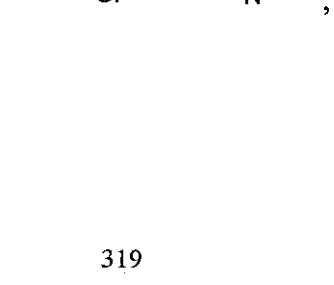
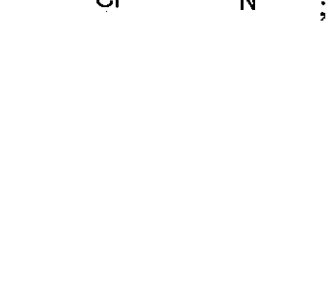
31. The compound of claim 1, wherein each of R^a, R^b, R^1, R^{2a}, R^{2b}, R^{2c}, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^6, R^8, $R^{8'}$, R^9, R^{10} and L^2 are unsubstituted.

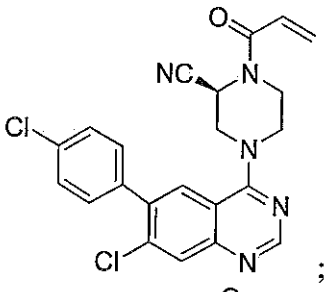
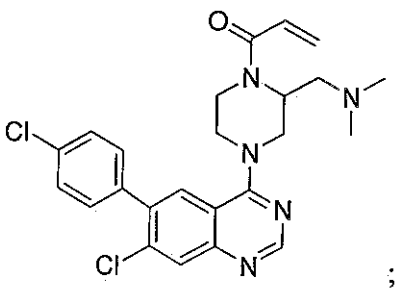
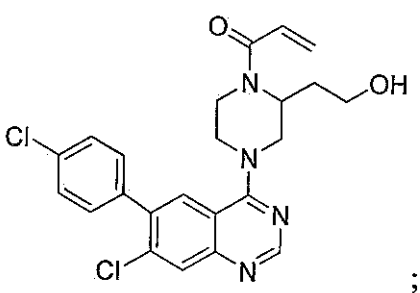
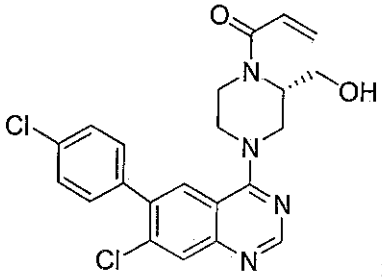
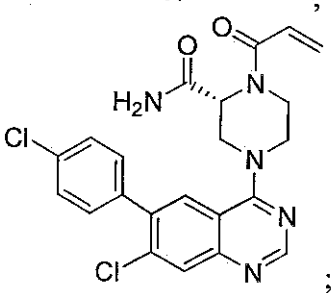
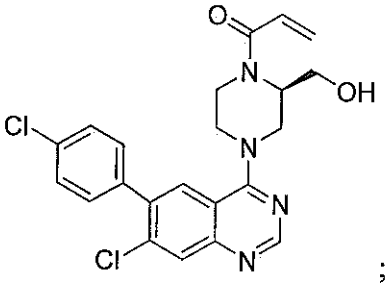
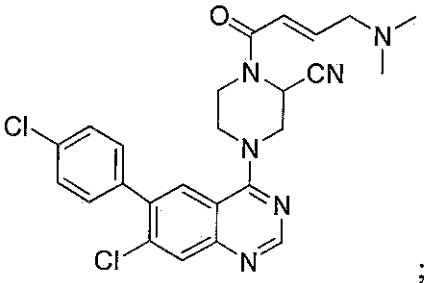
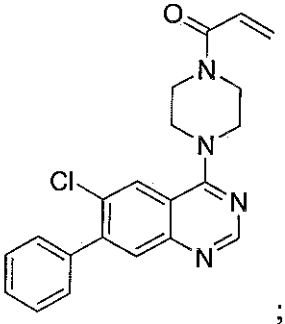
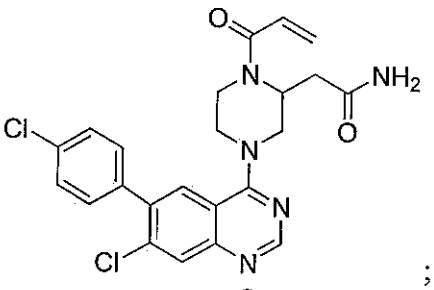
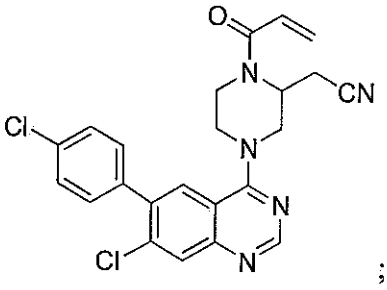
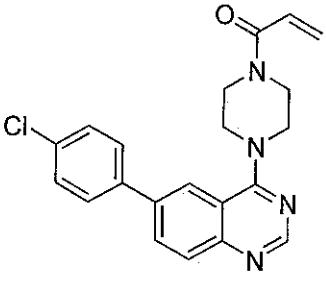
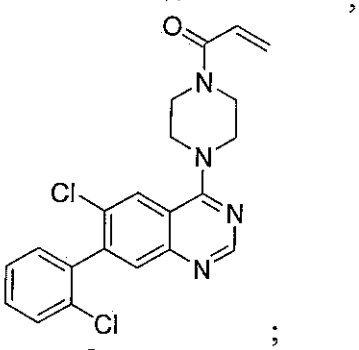
32. The compound of claim 1, wherein the compound has one of the following structures:

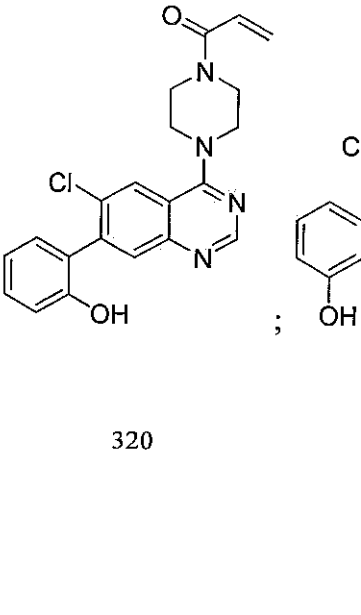

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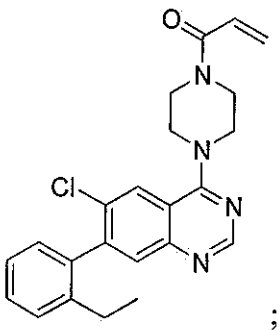
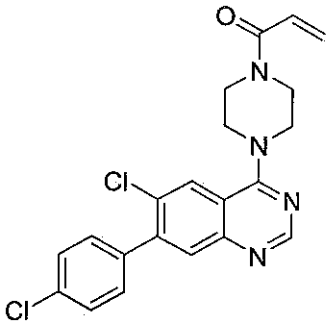
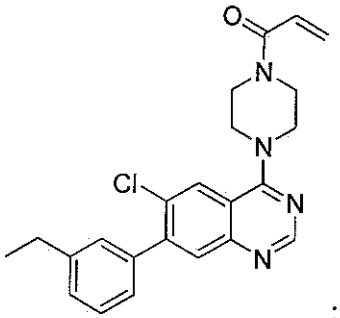
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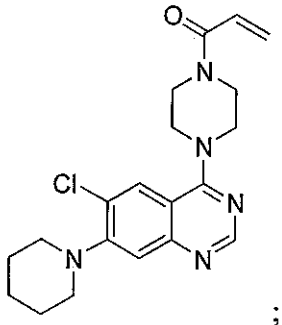
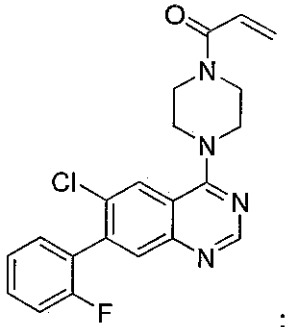
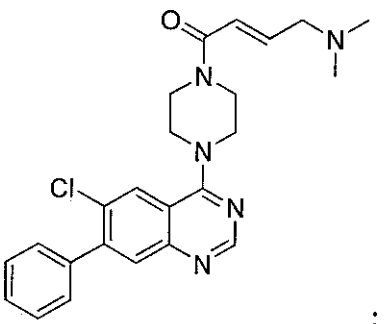
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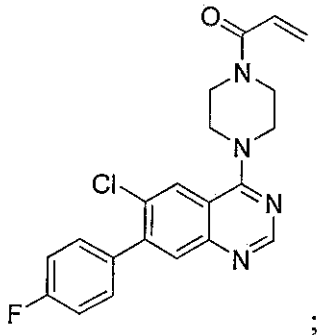
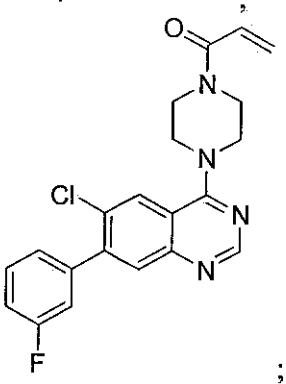
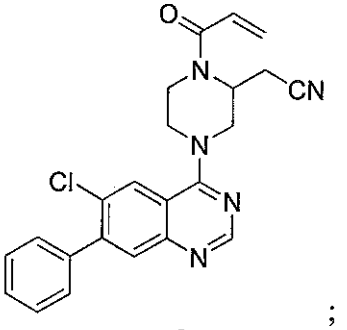
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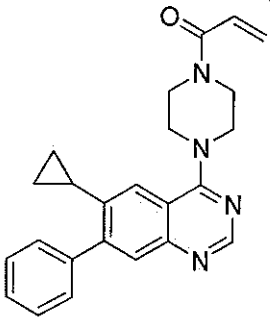
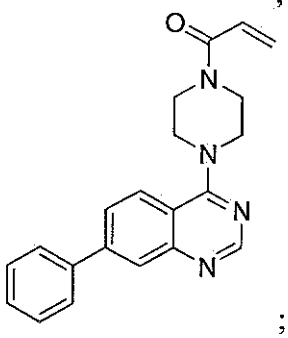
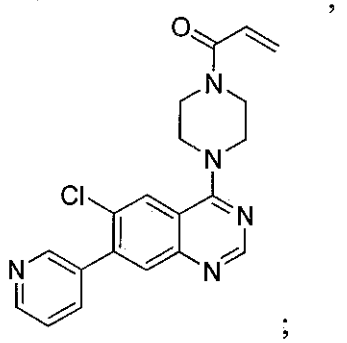
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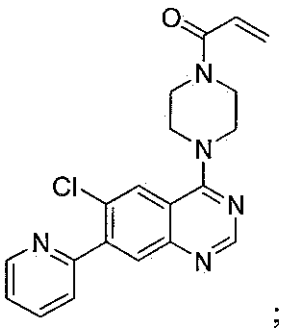
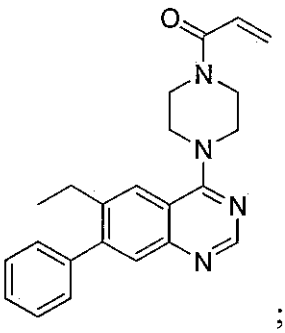
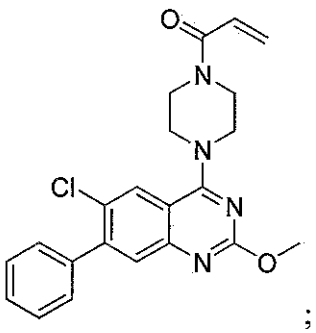
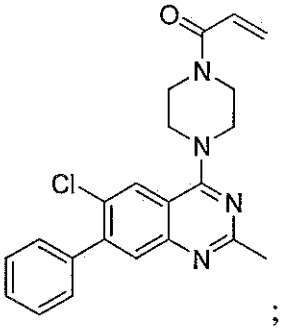
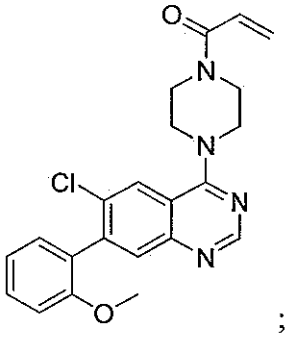
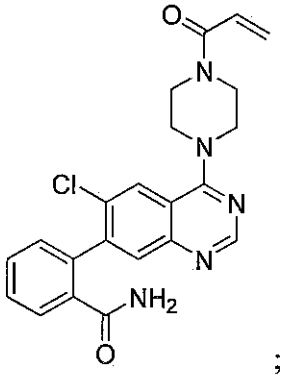
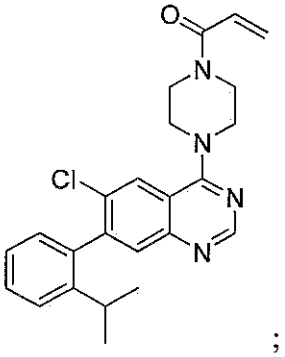
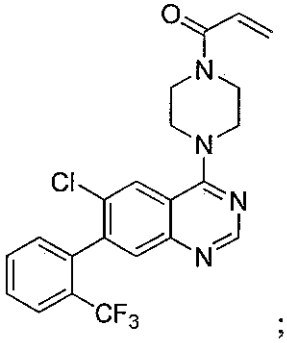
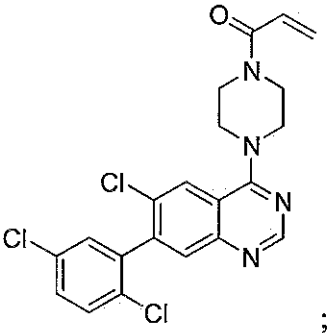
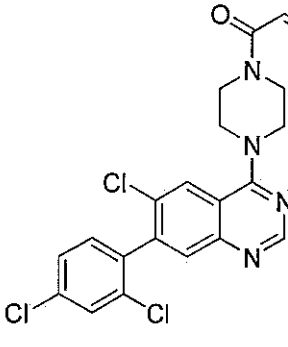
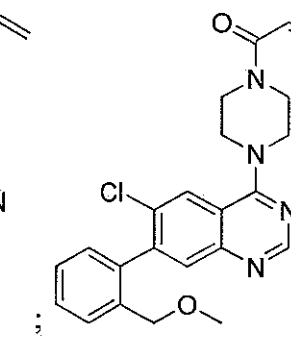
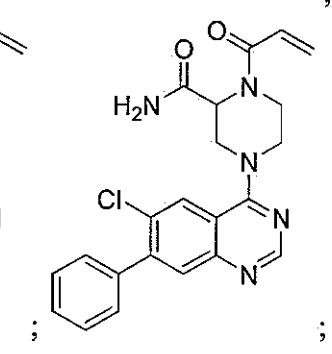
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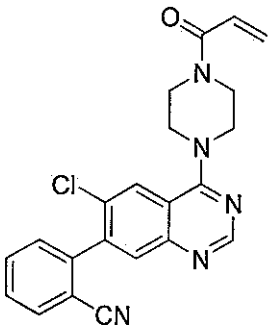
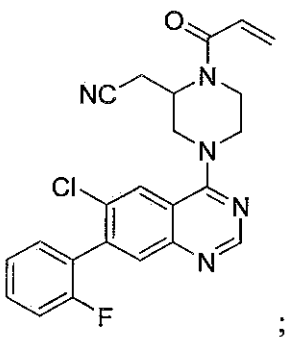
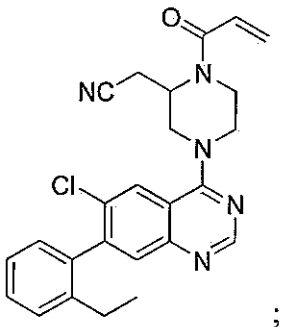
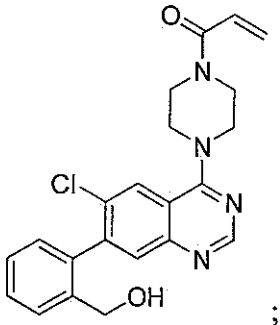
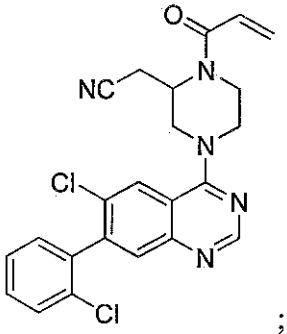
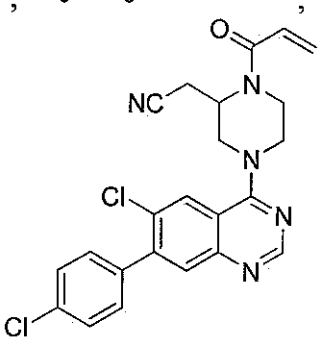
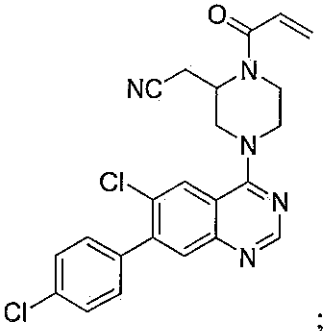
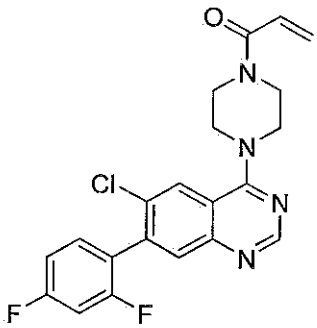
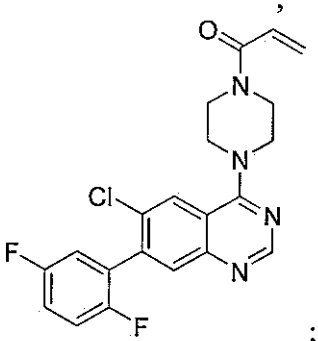
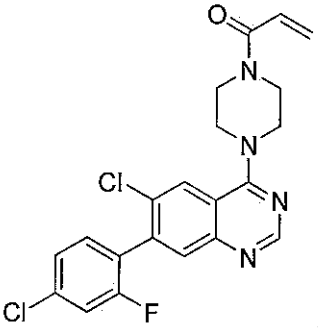
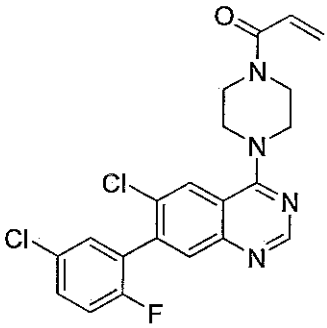
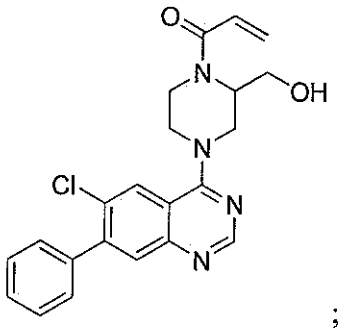
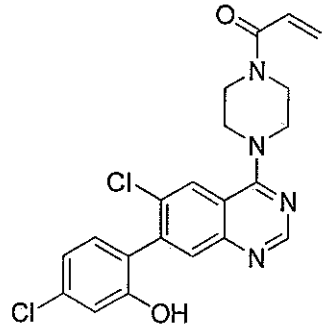
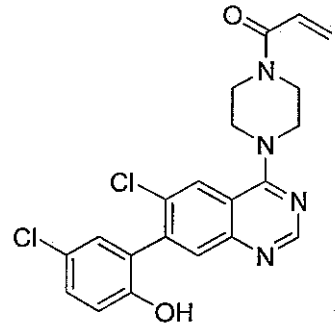
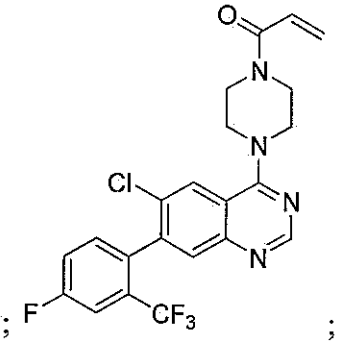

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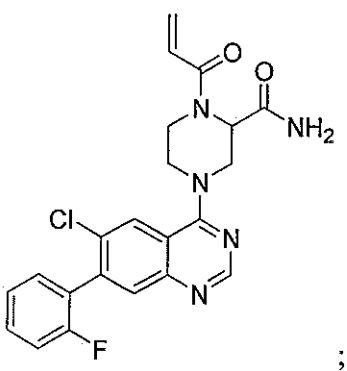
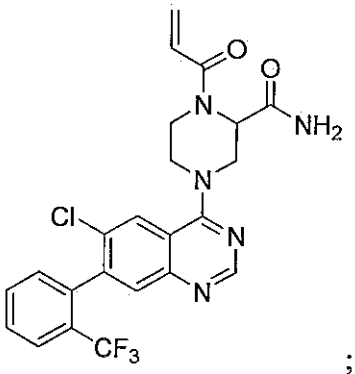
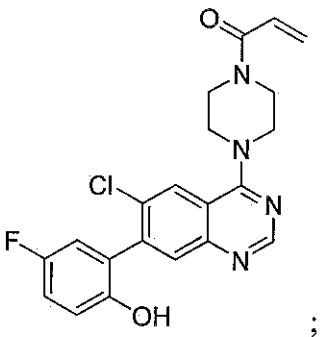
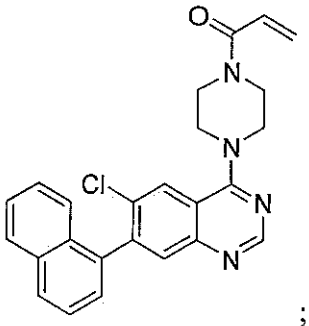
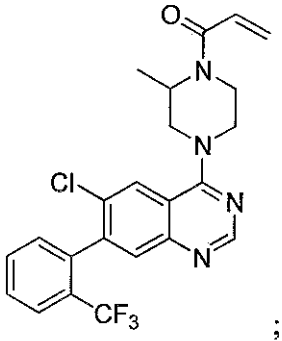
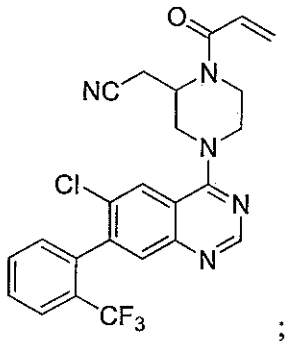
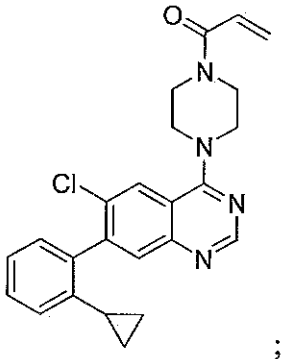
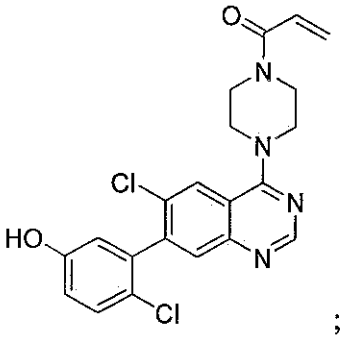
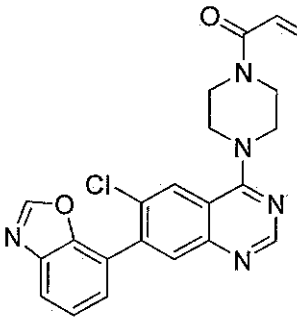
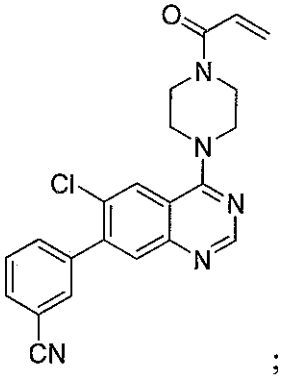
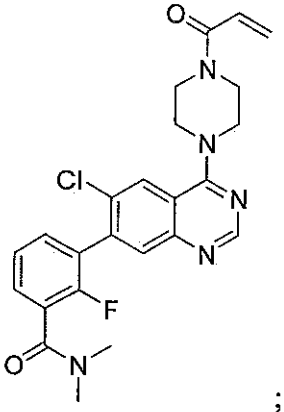
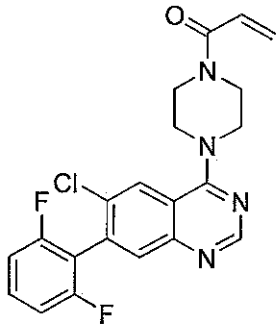
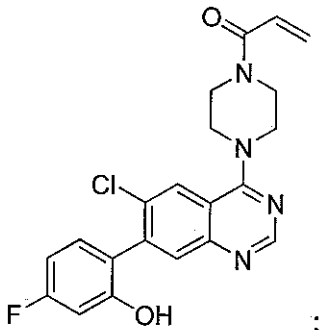
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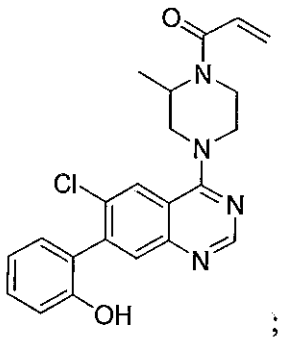
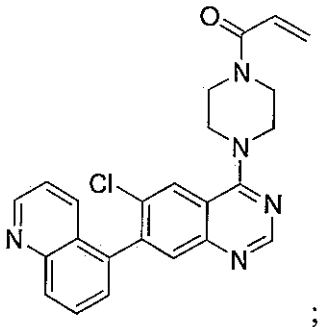
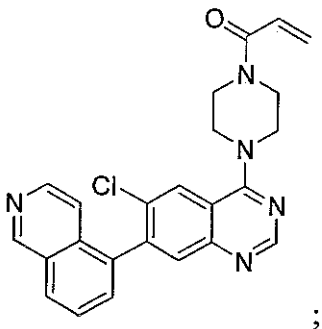
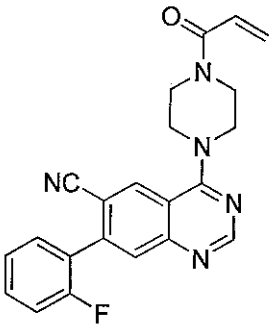
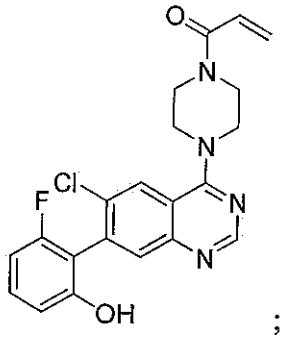
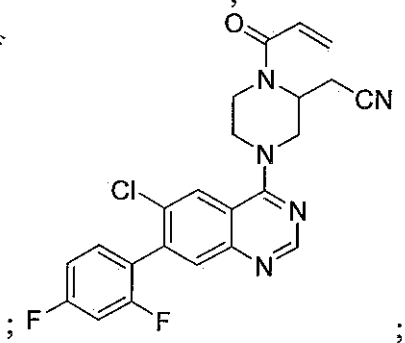
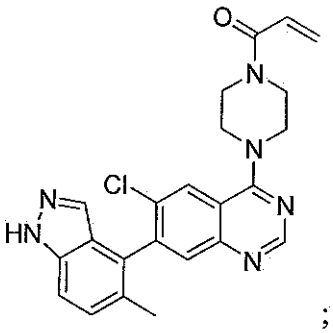
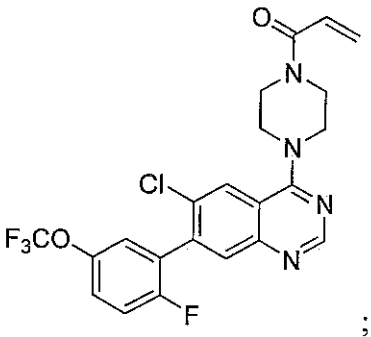
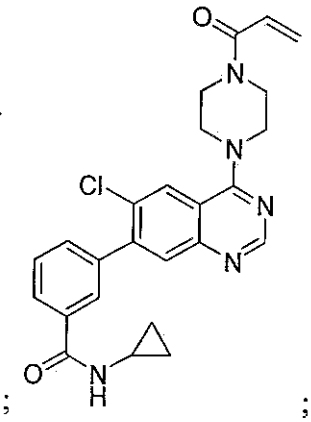
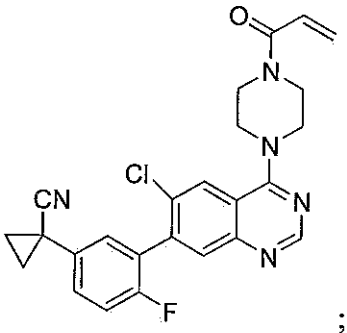
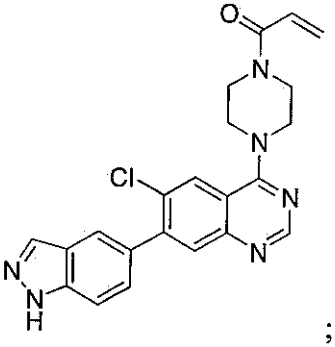
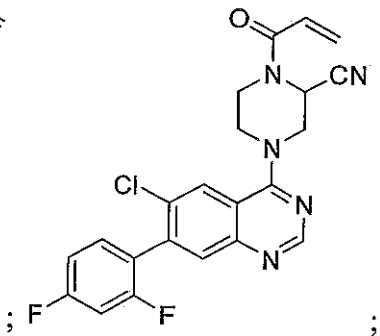
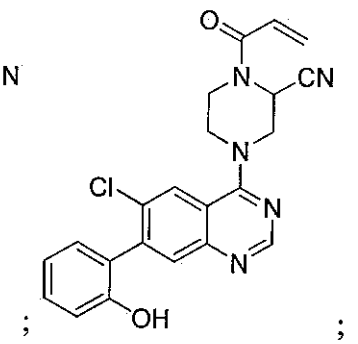

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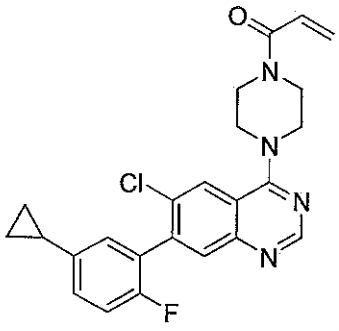
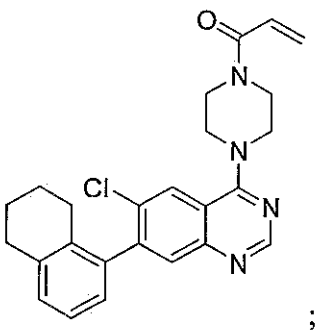
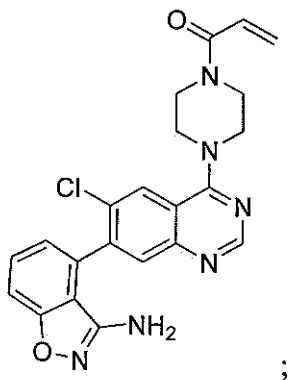
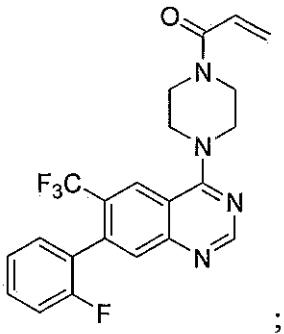
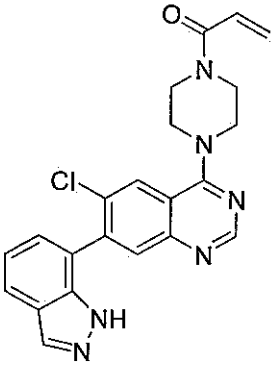
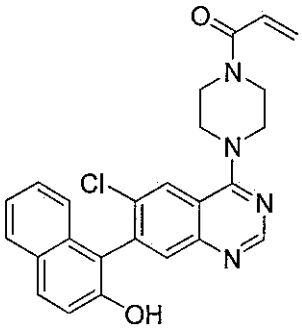
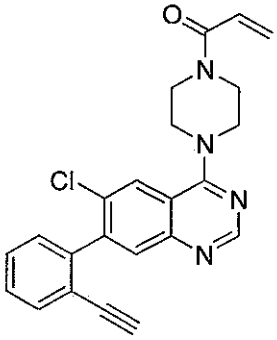
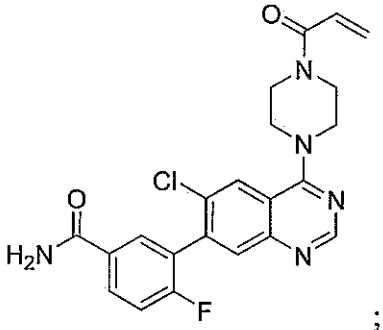
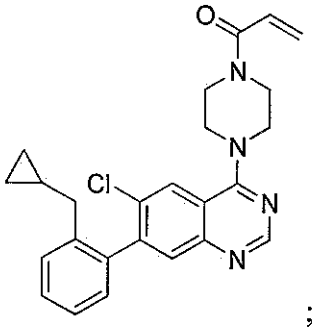
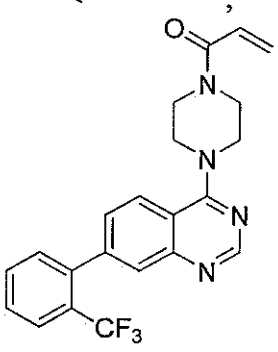
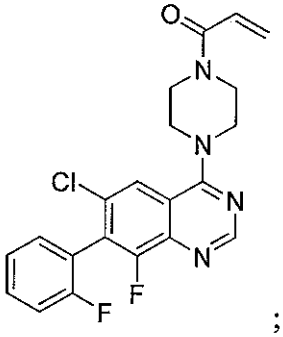
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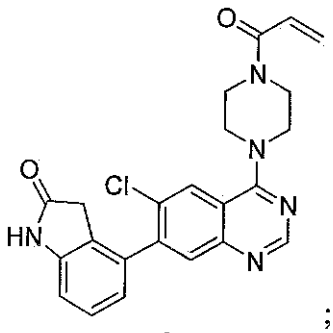
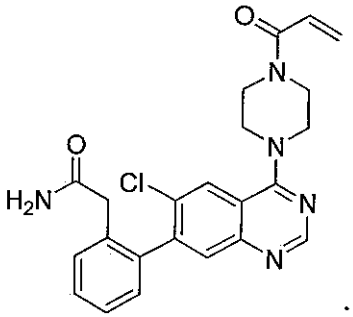
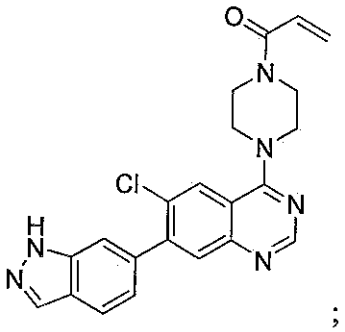
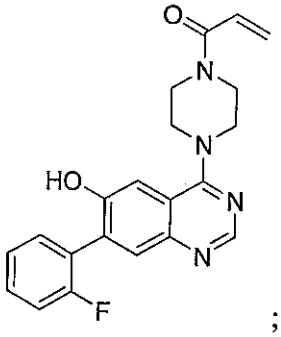
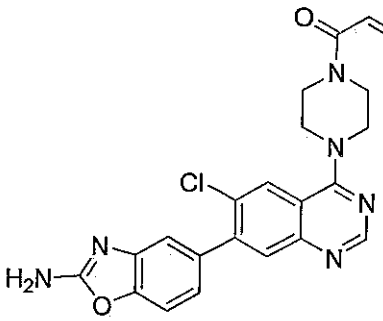
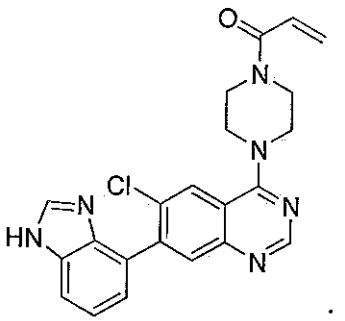
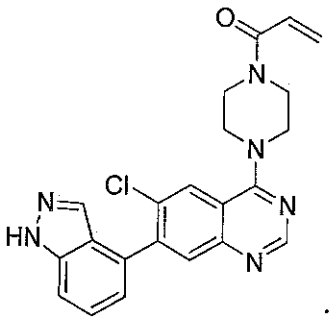
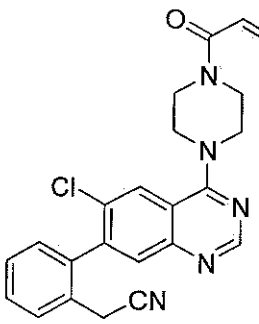
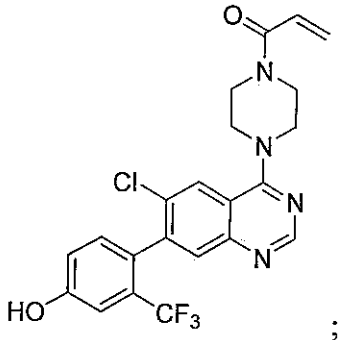
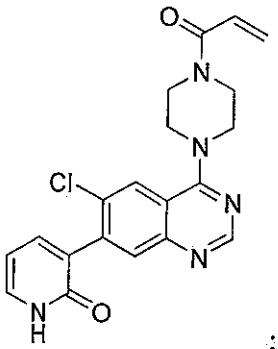
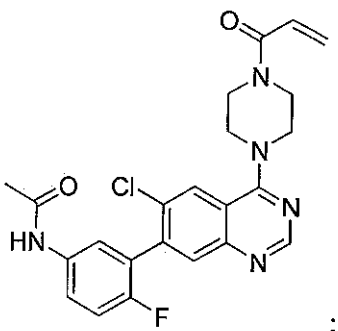
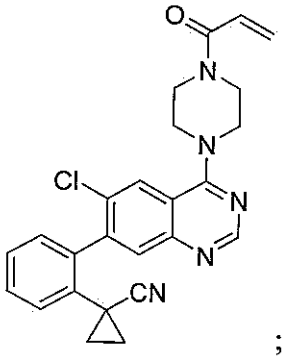
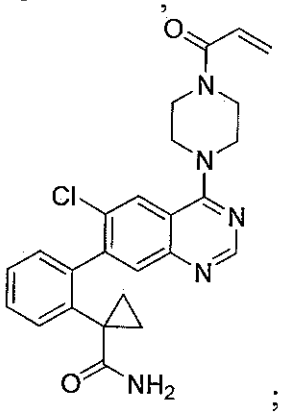
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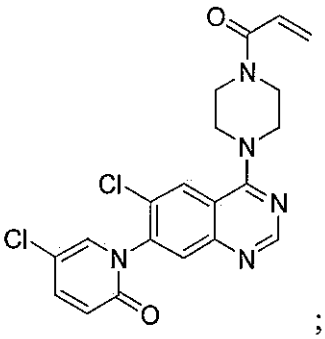
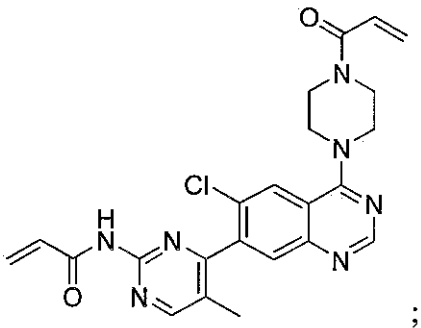
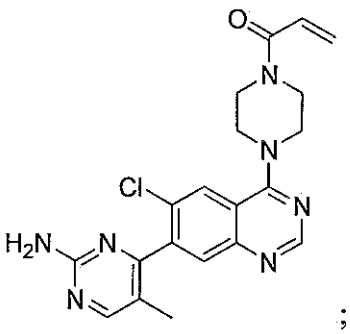
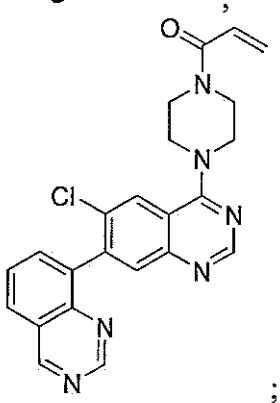
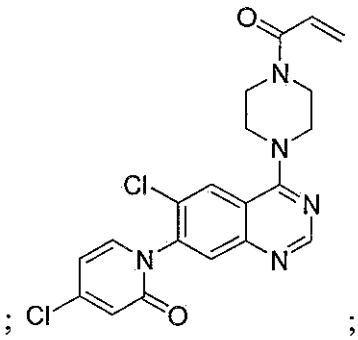
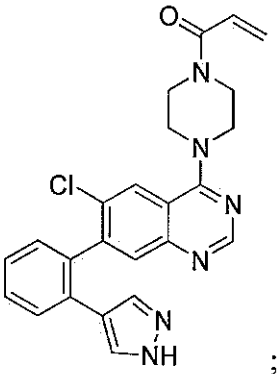
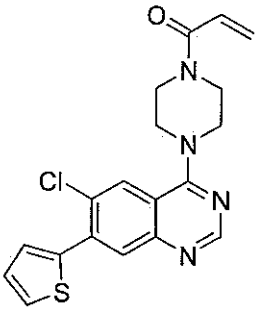
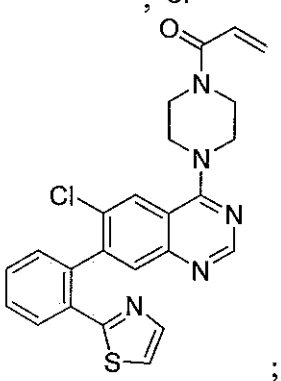
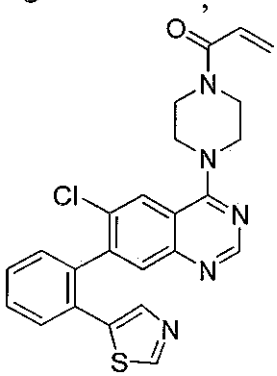
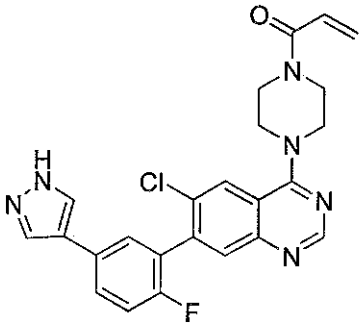
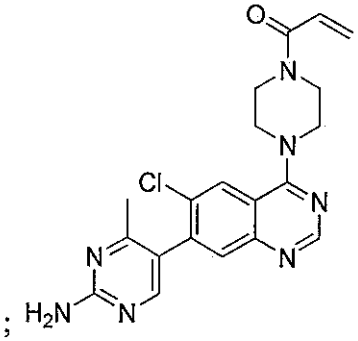
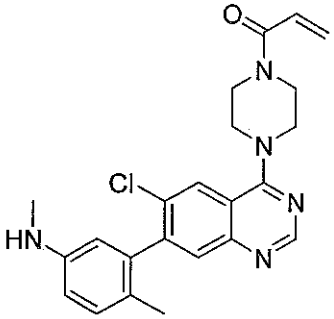
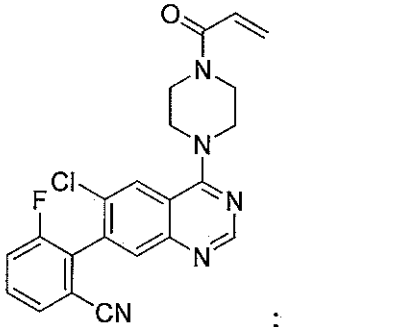
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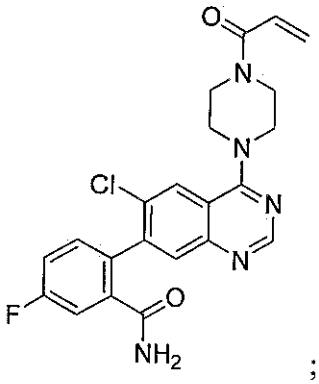
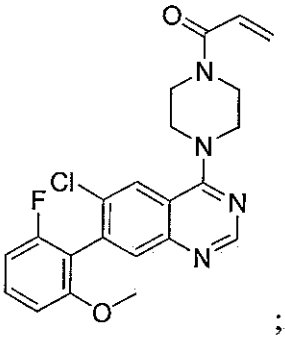
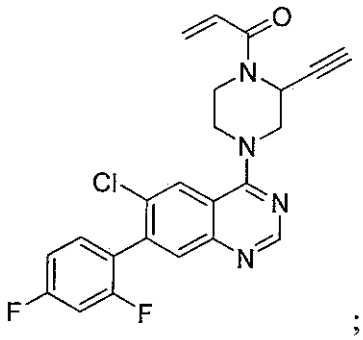
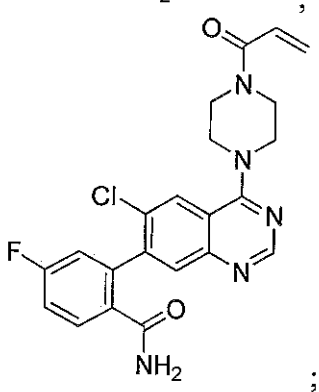
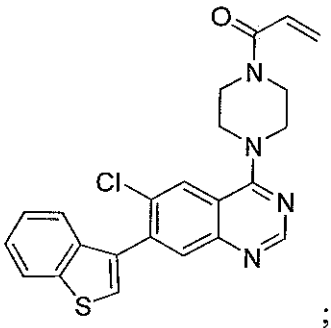
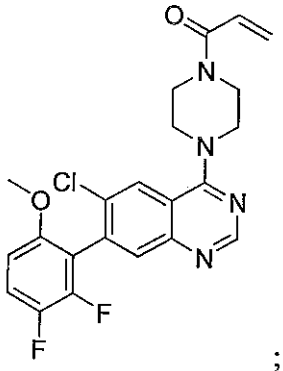
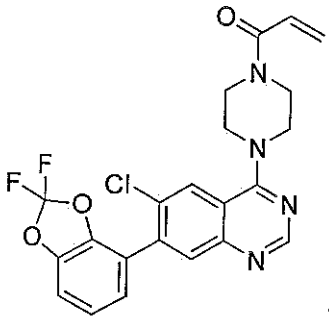
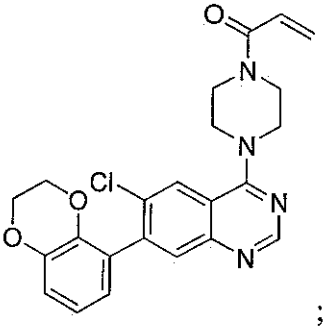
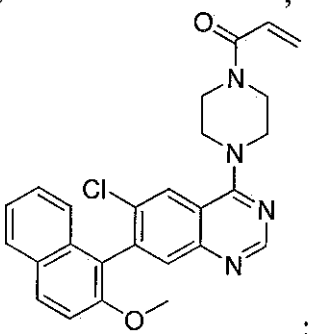
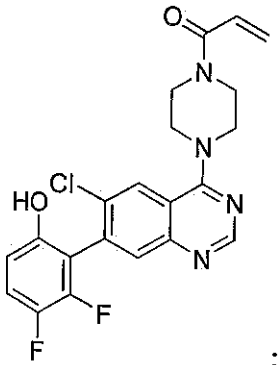
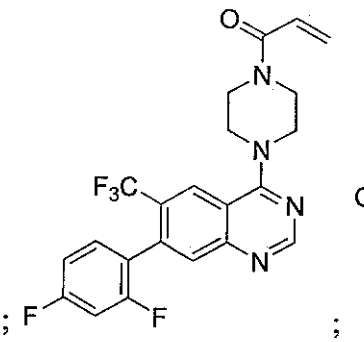
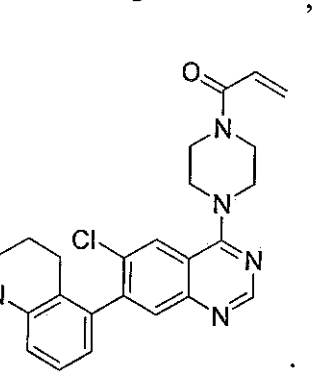

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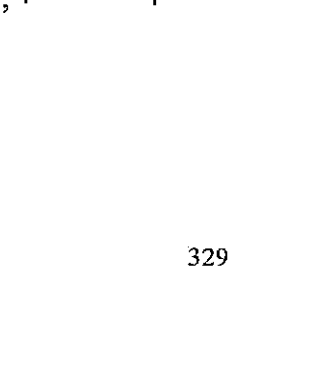

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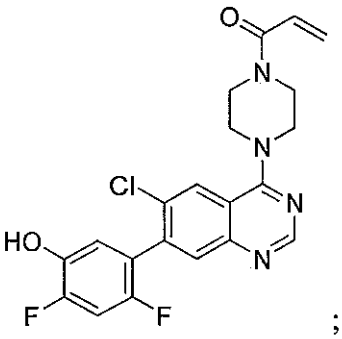
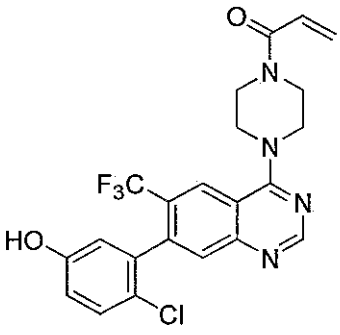
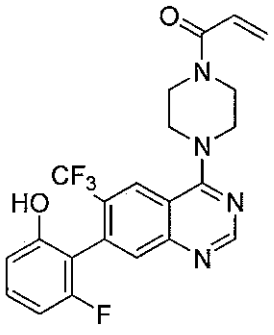
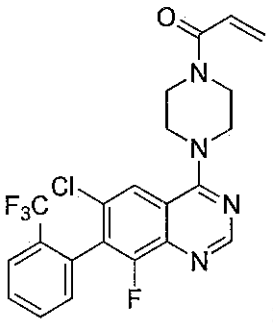
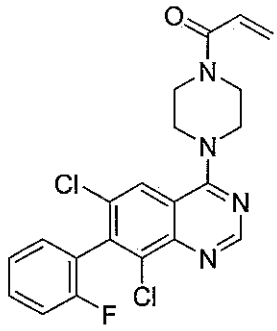
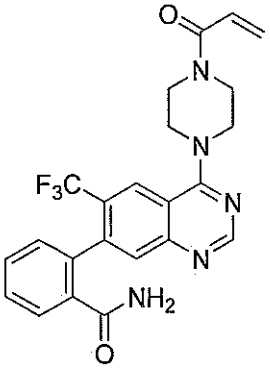
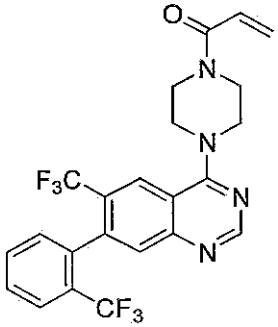
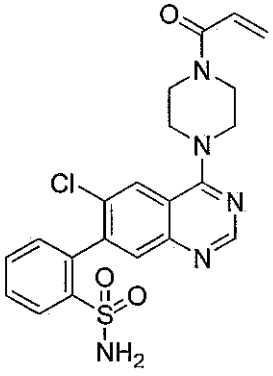

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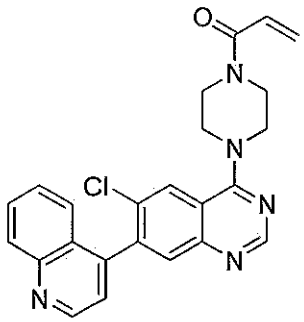
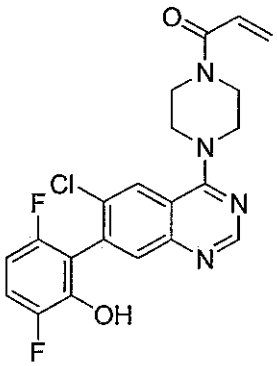
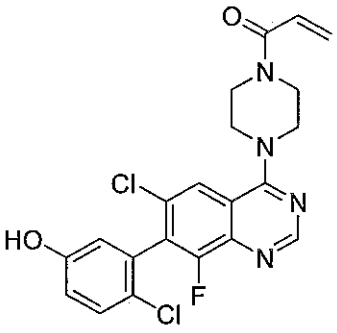
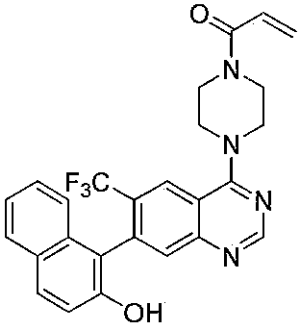
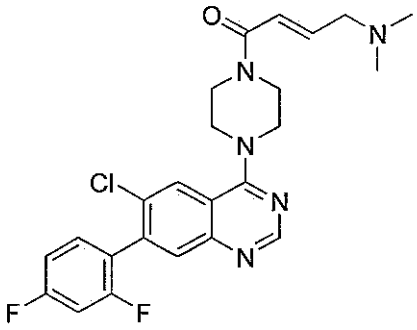
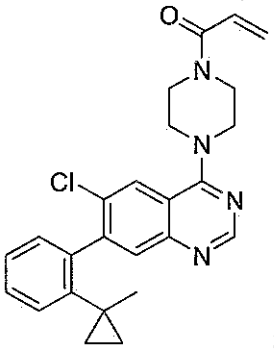
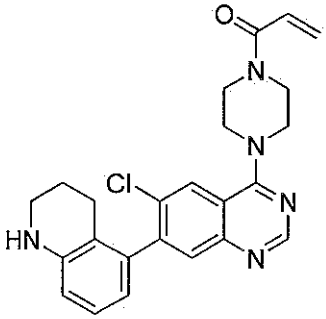
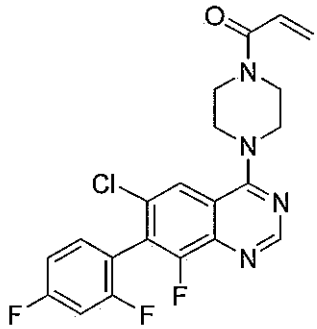
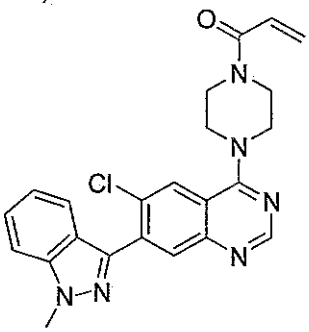
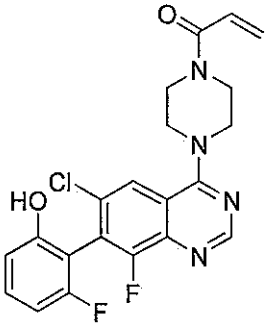
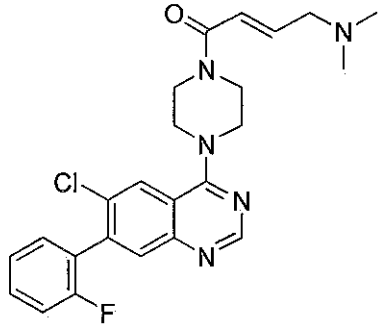
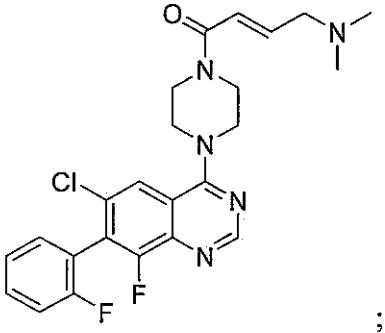

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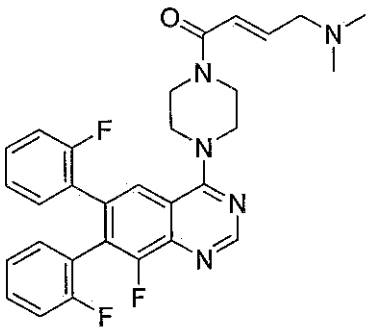
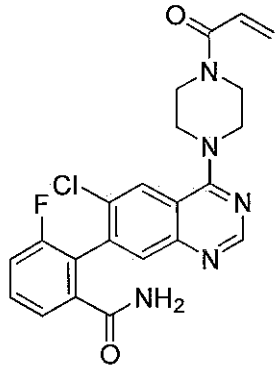
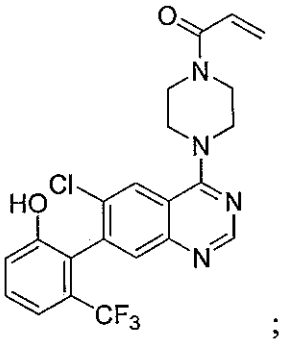
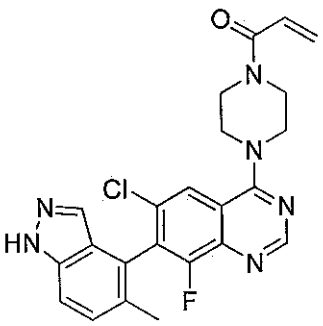
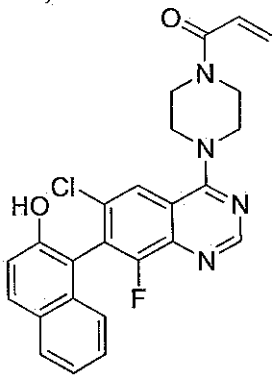
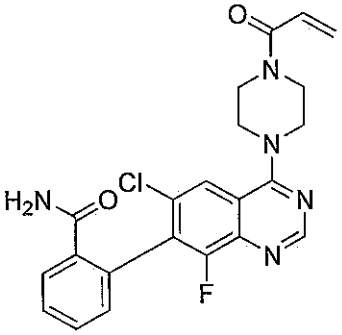
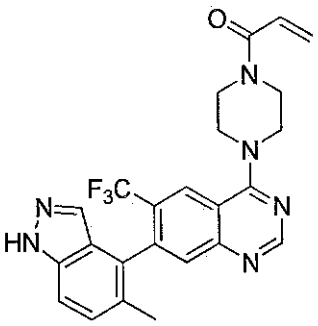
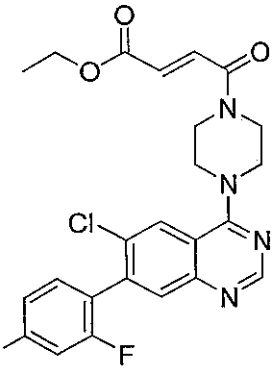
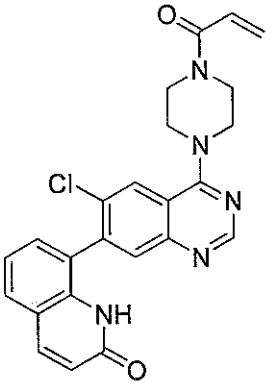
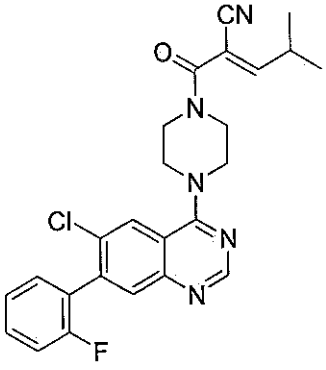
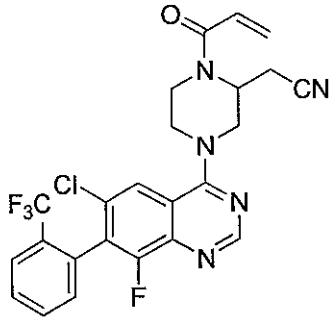
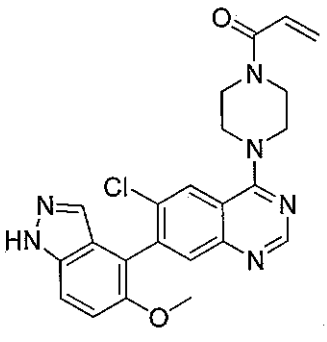

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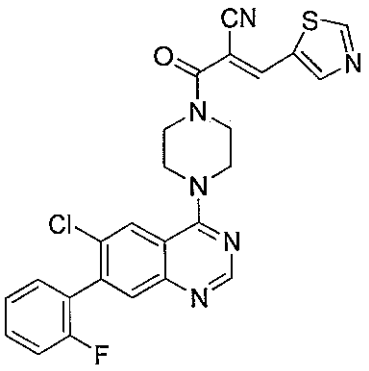
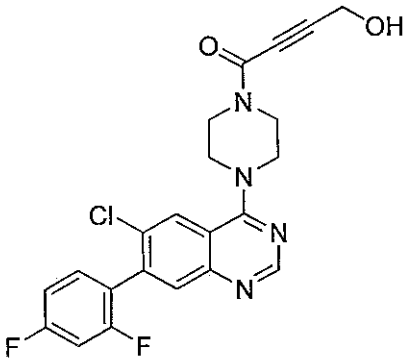
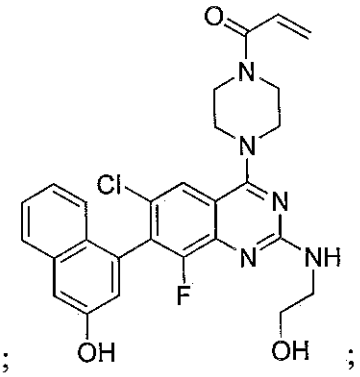
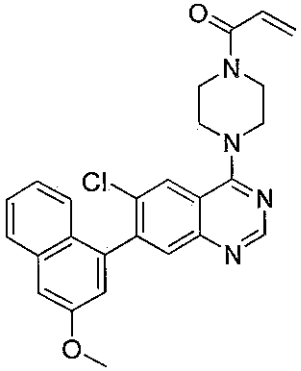
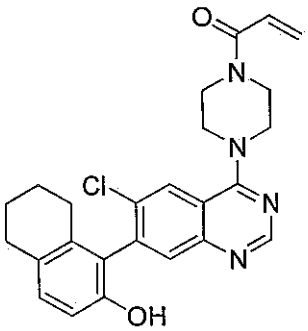
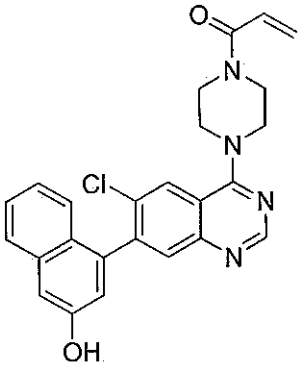
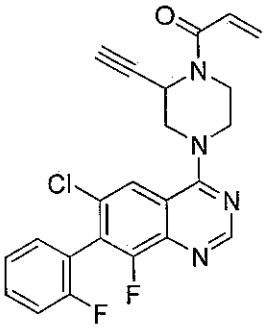
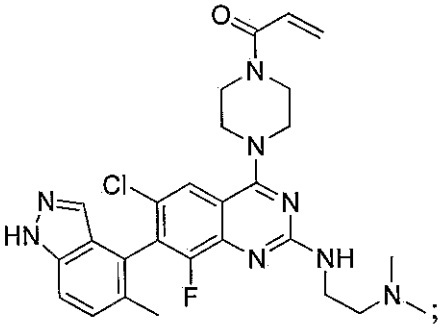
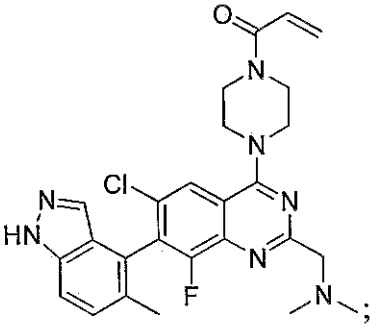
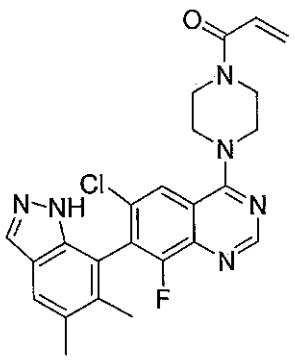
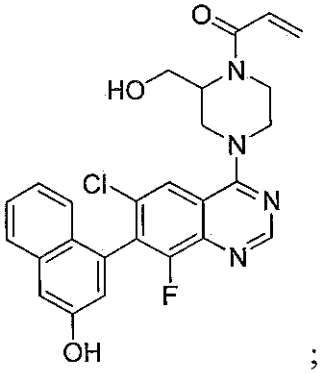
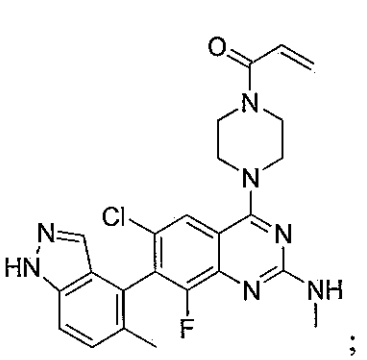
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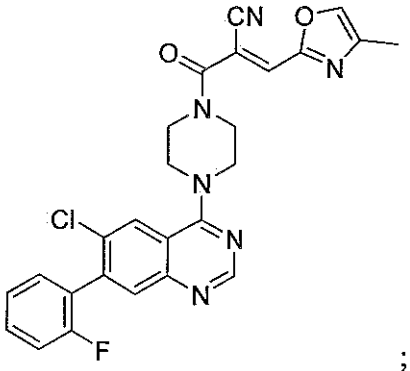
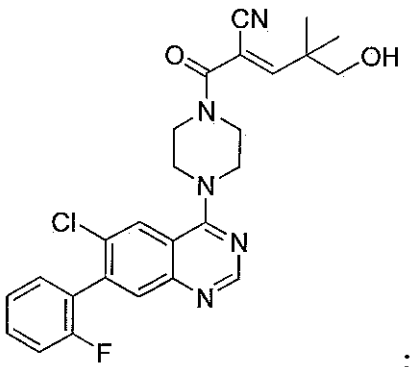
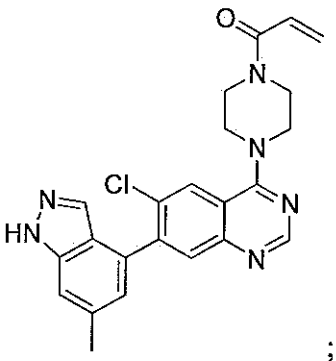
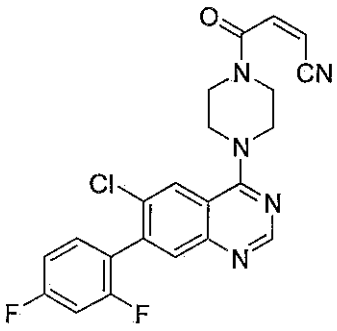
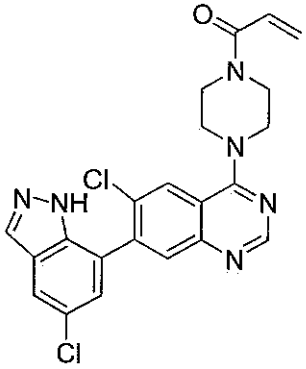
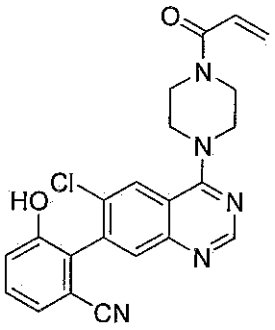
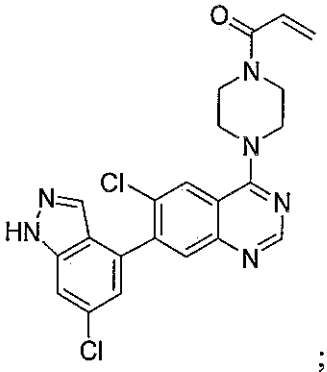
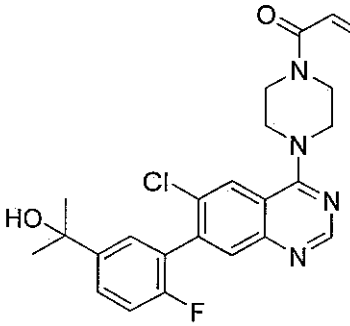
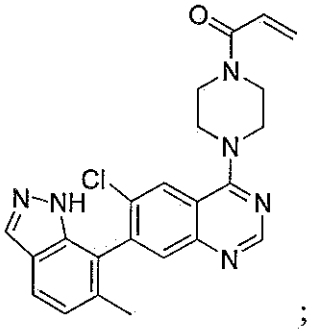
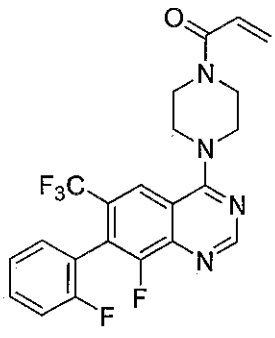
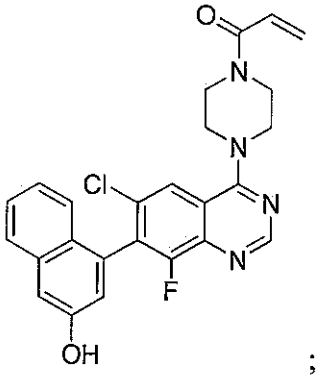
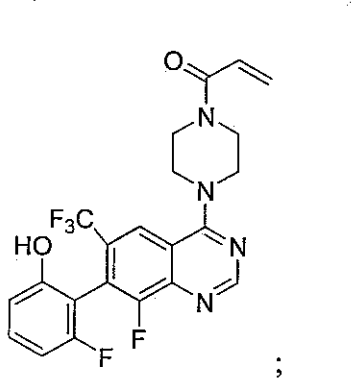
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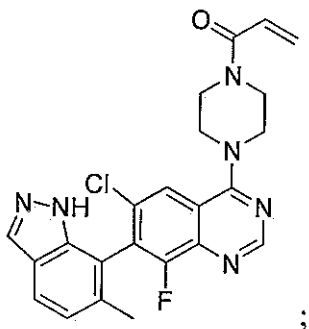
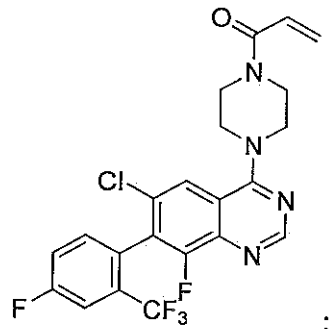
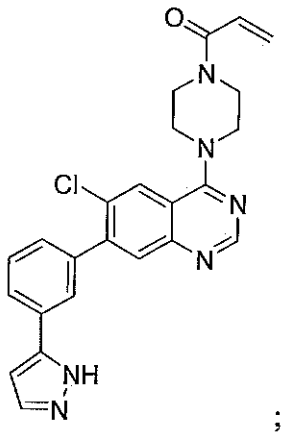
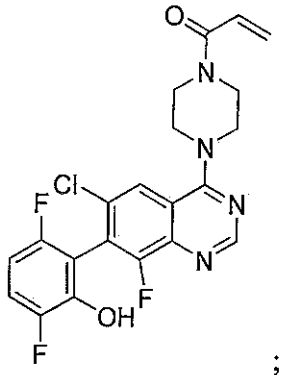
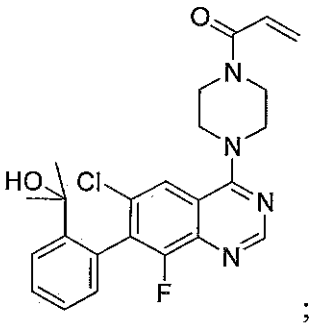
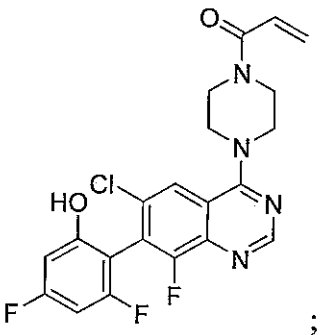
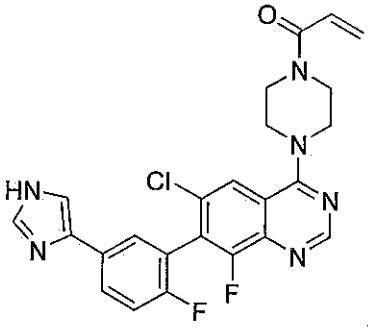
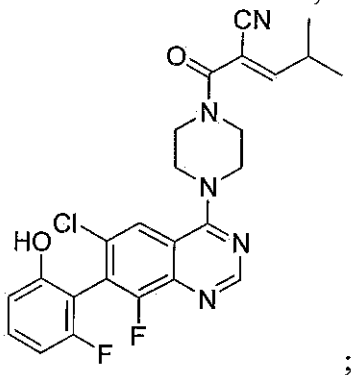
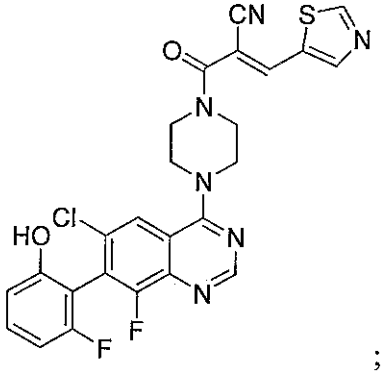

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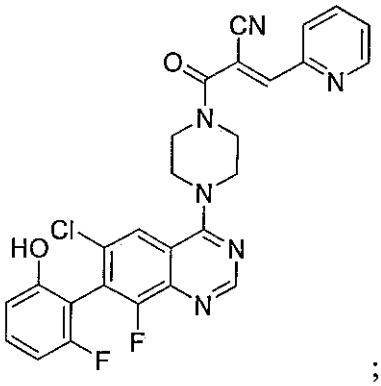
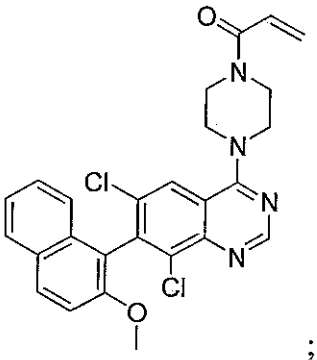
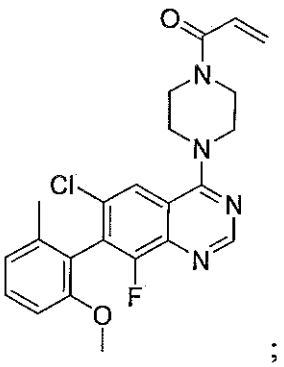
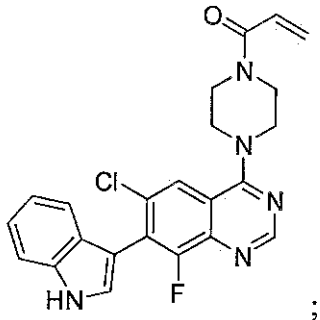
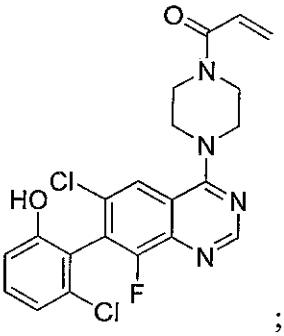
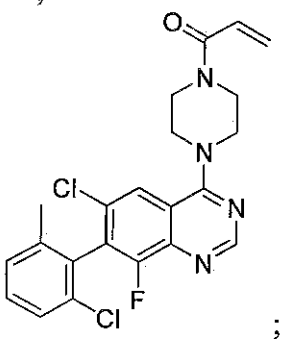
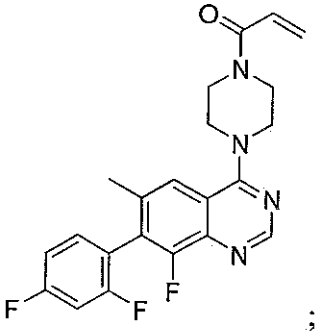
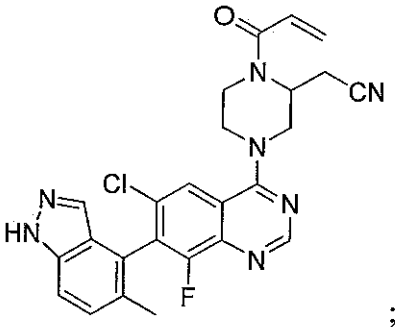
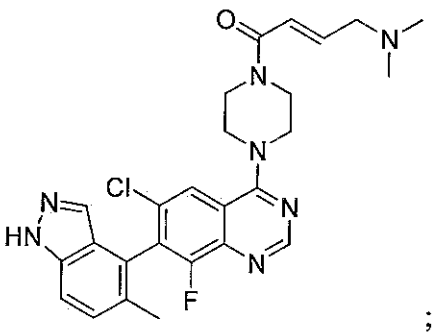
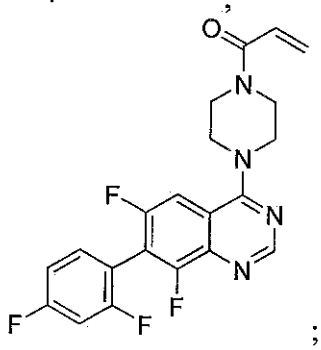
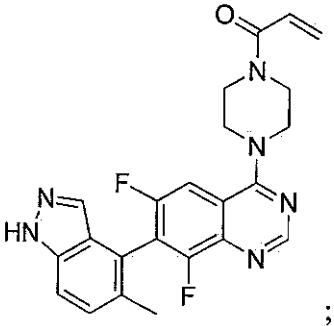
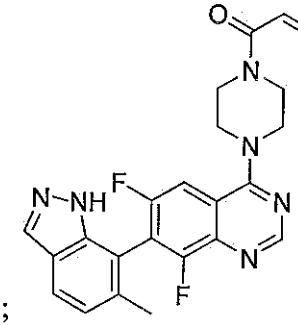

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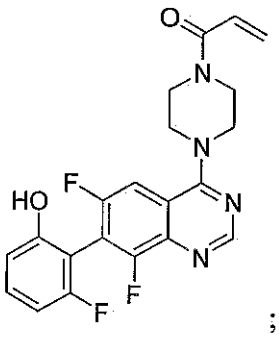
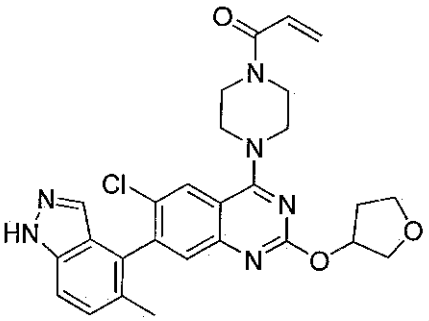
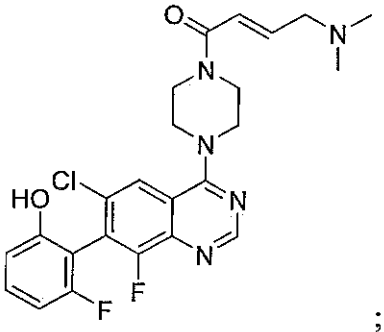
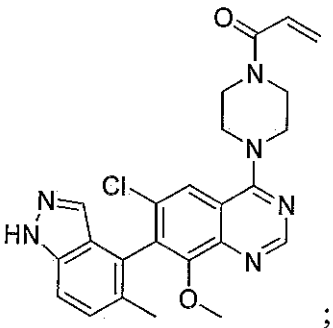
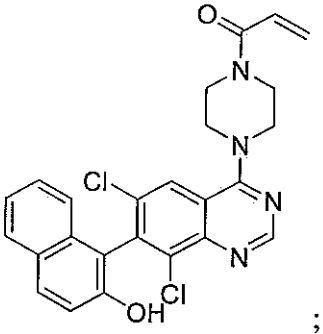
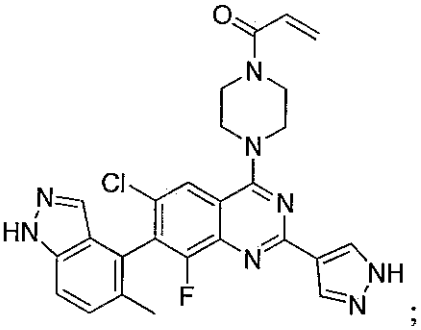
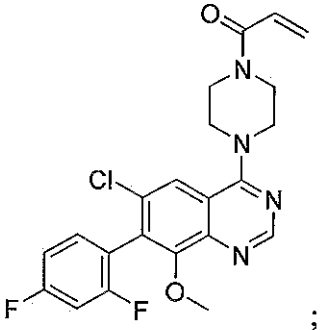
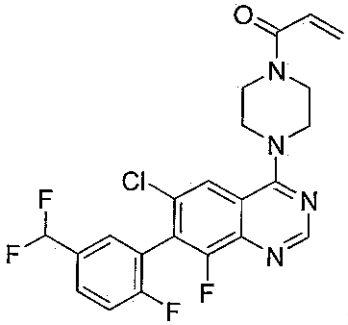
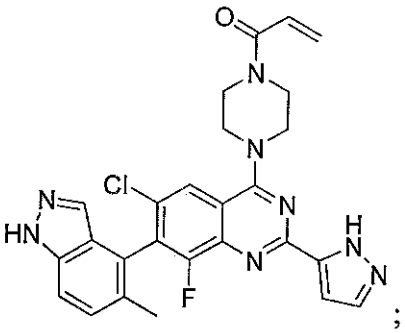
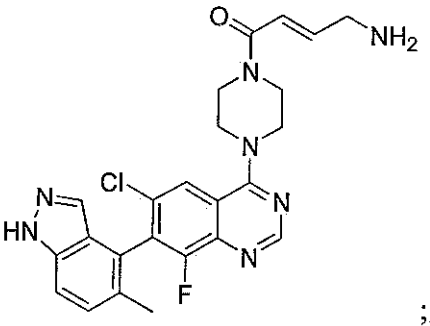
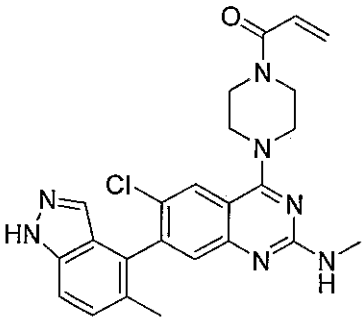
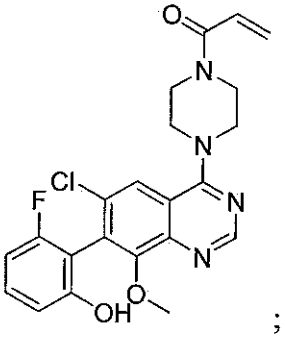
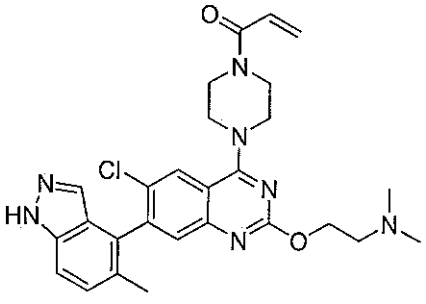
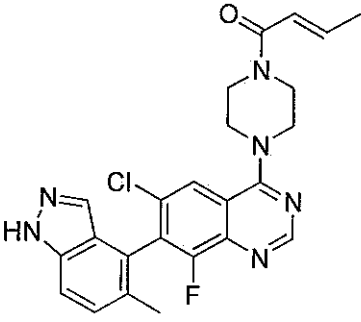

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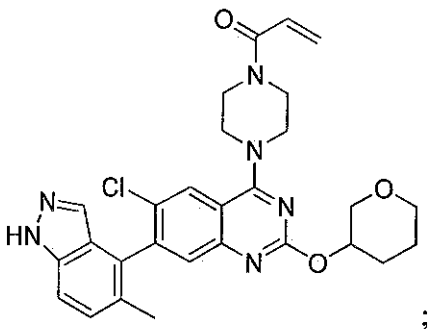
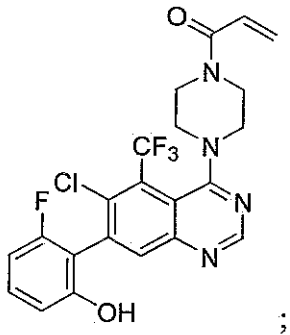
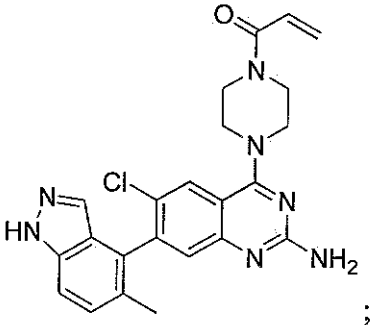
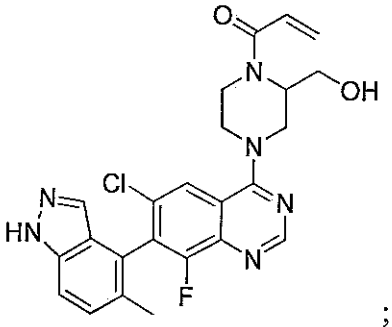
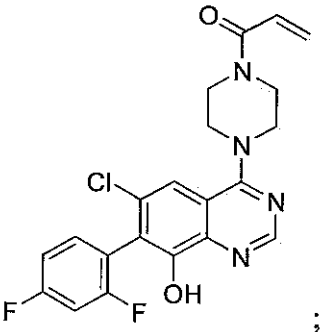
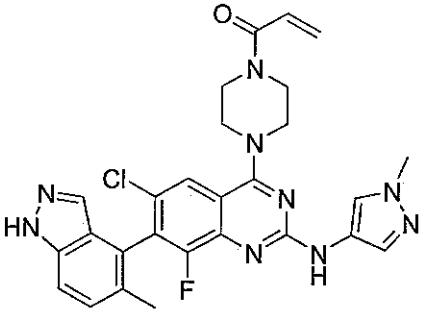
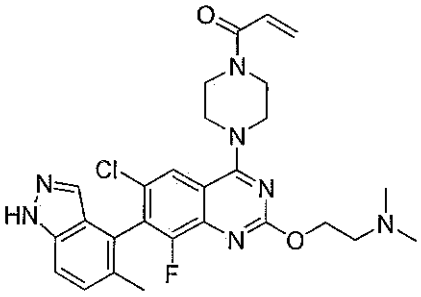
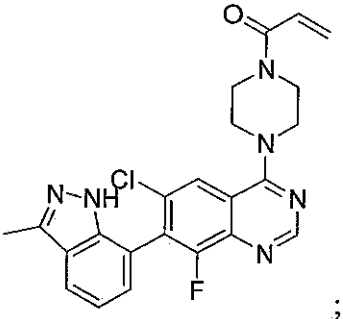
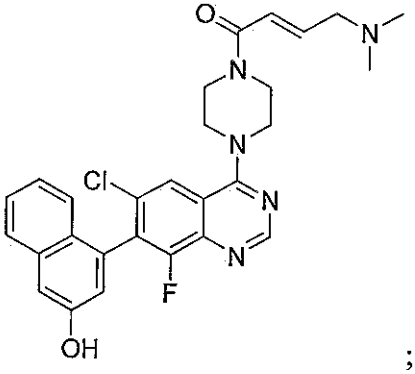
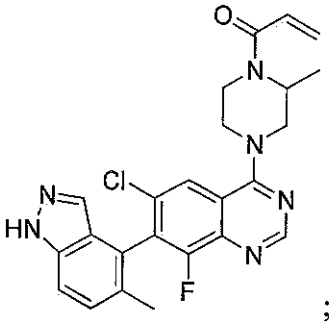
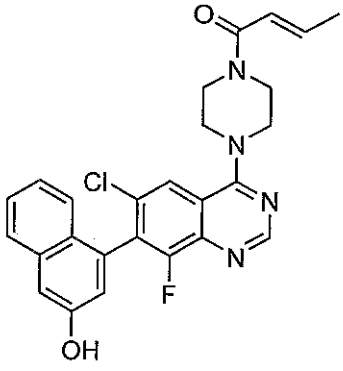
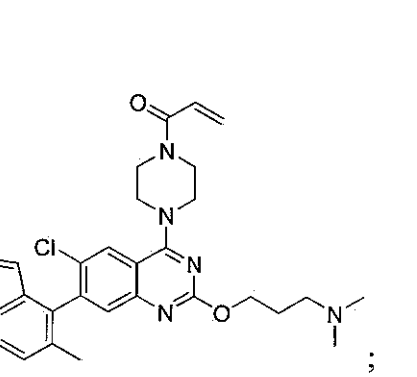














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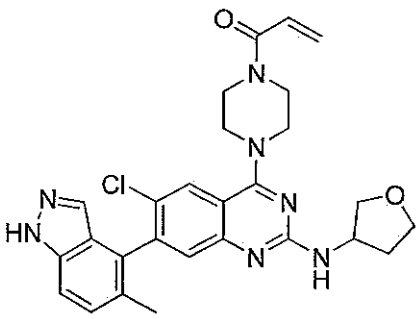
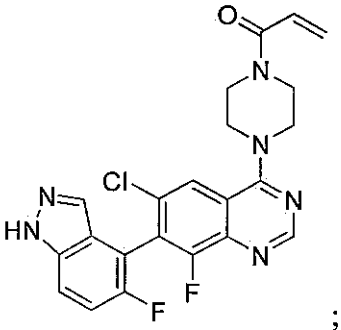
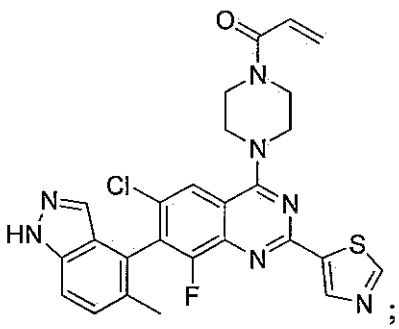
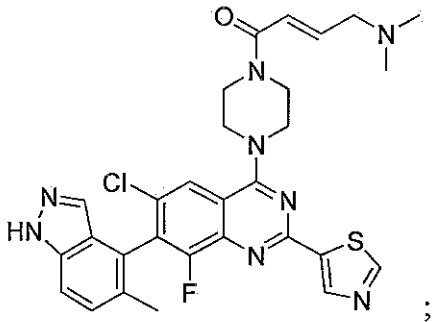
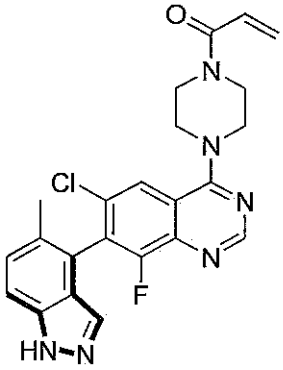
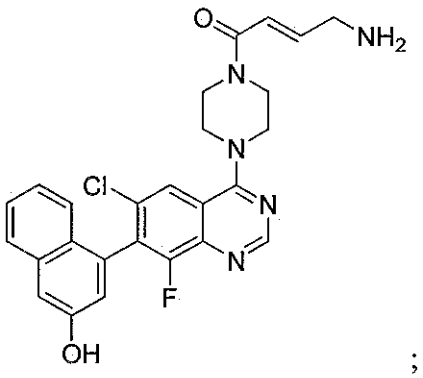
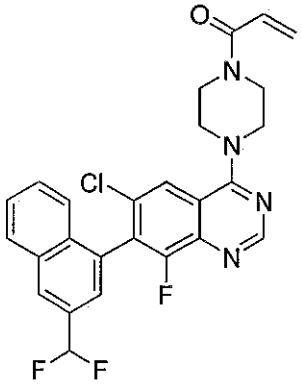
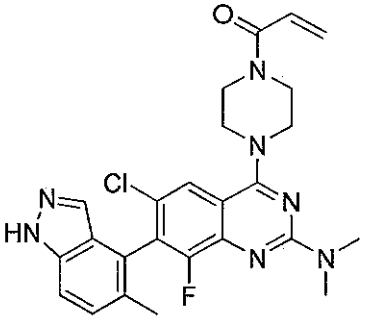
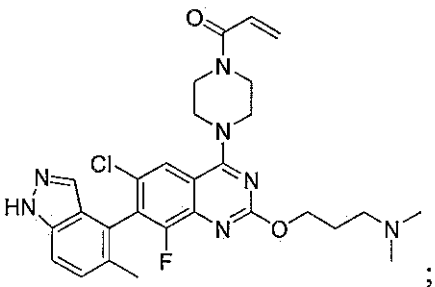
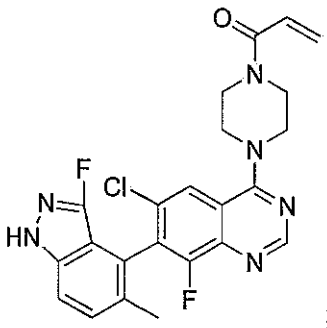
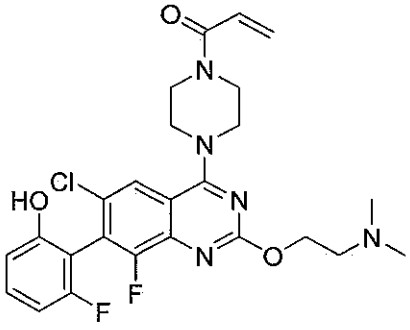
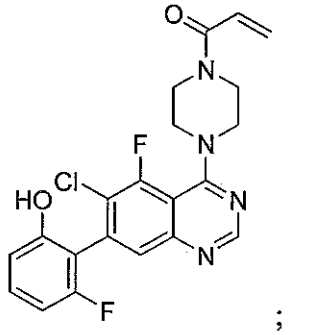
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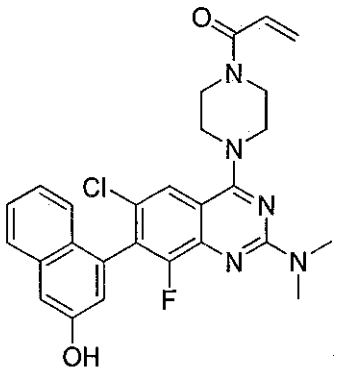
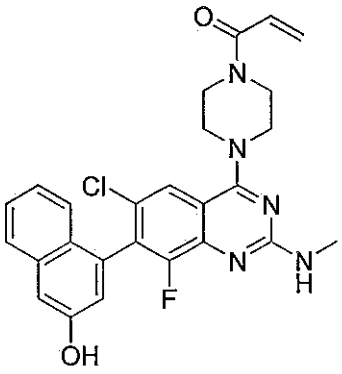
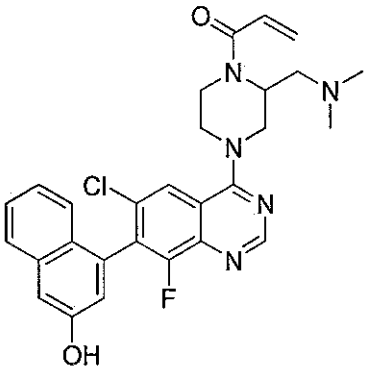
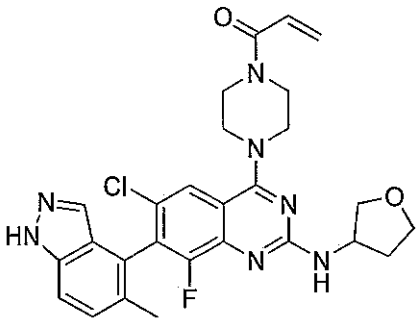
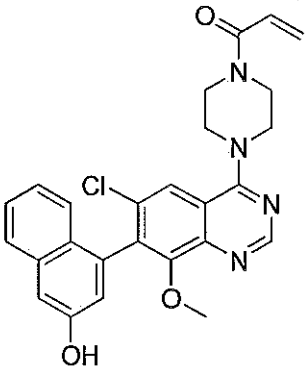
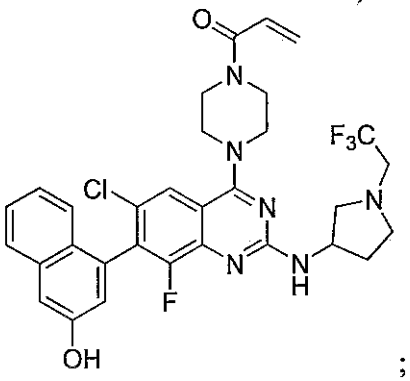
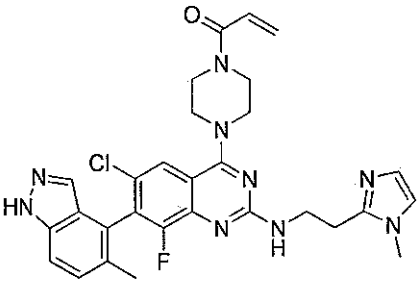
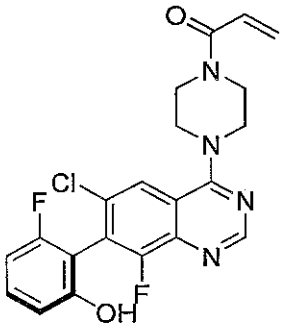
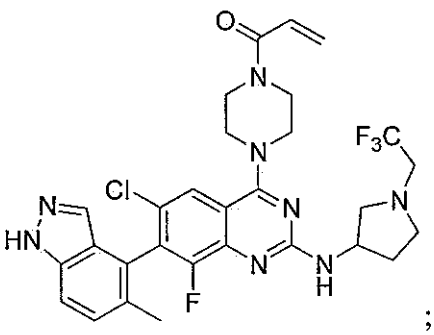
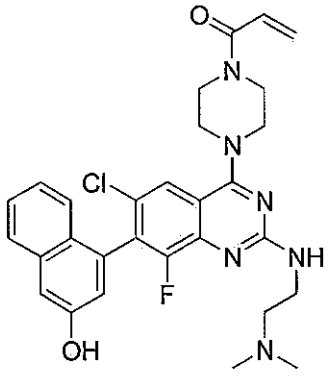
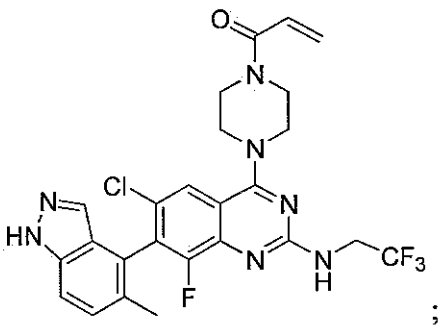
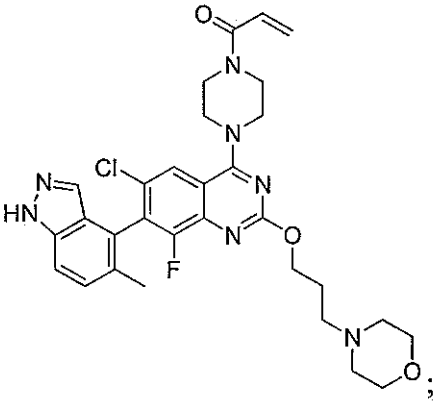
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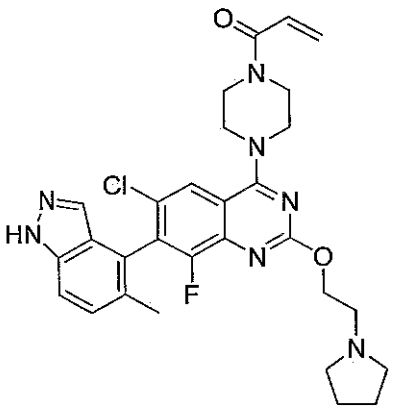
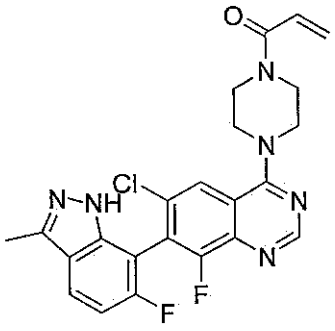
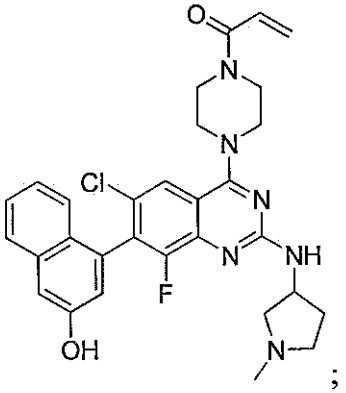
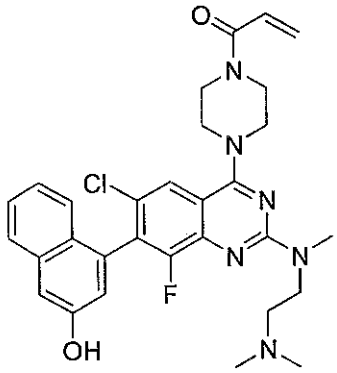
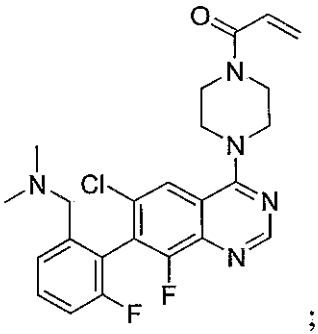
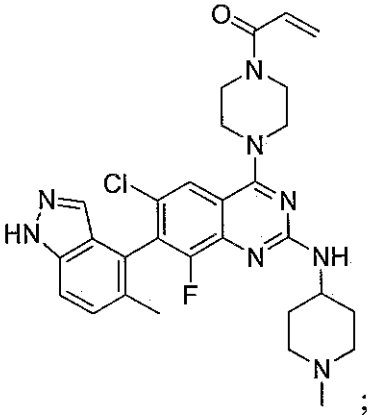
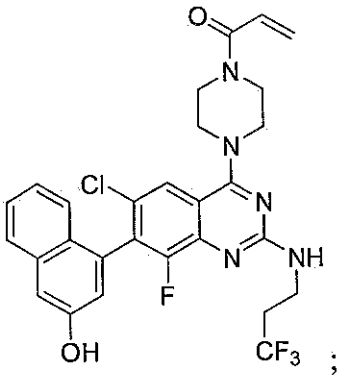
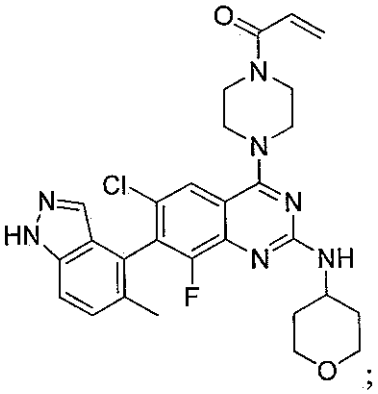
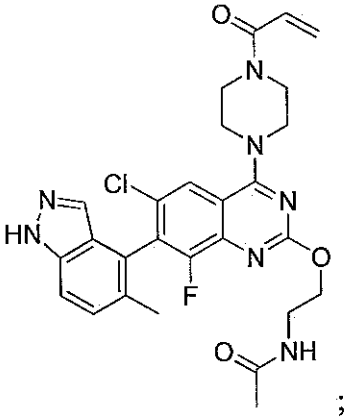
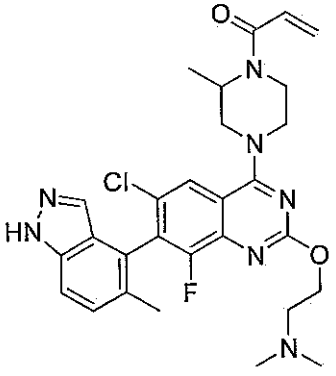
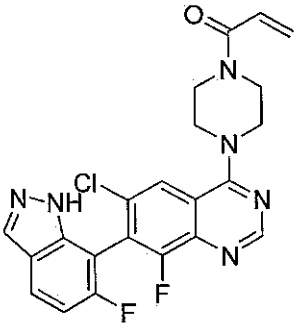
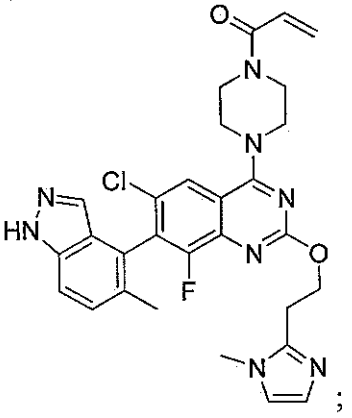
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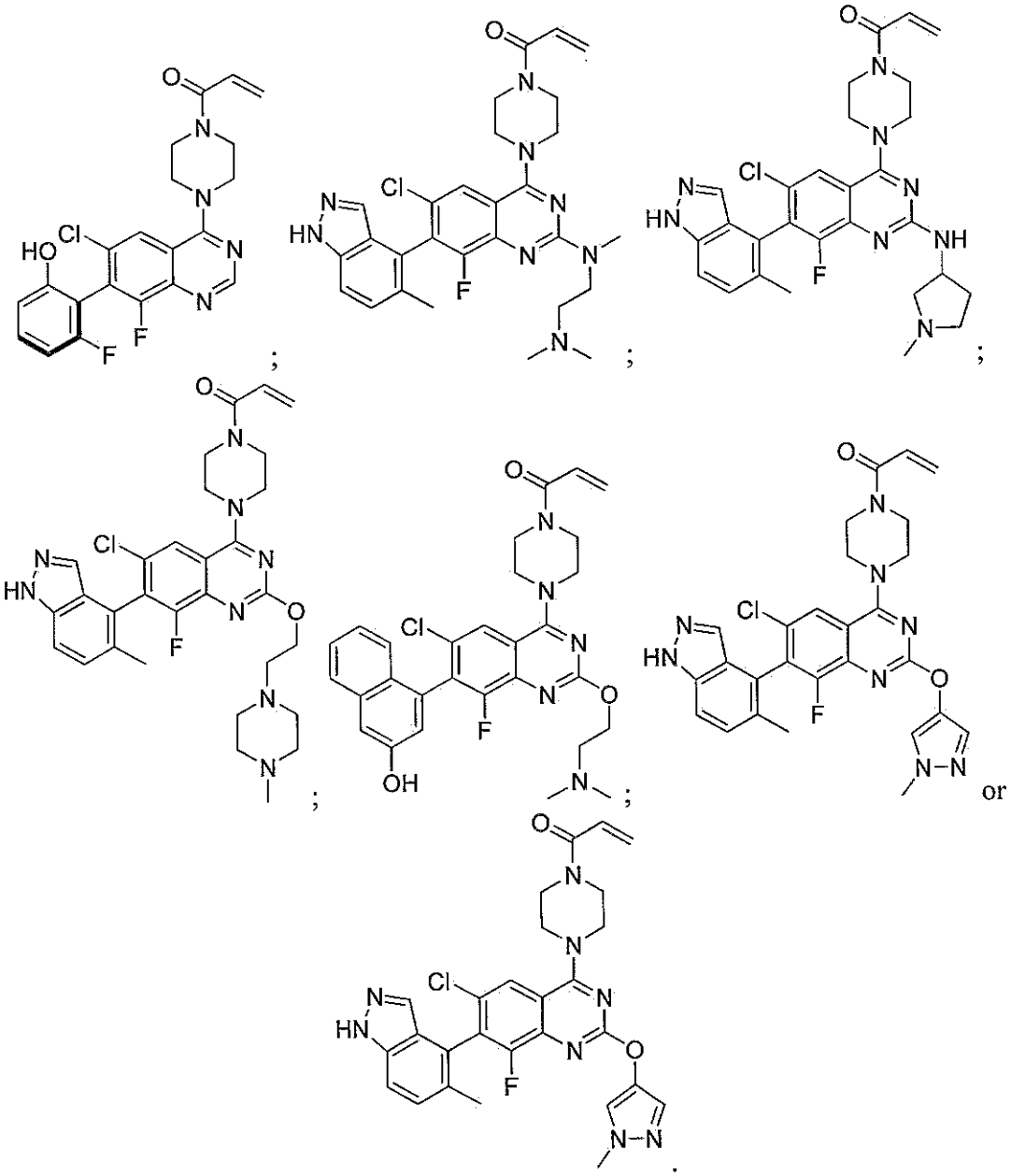
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33. A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.