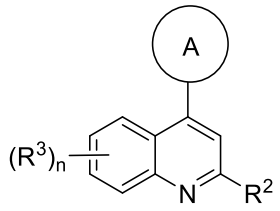
WHAT IS CLAIMED IS:

1. A compound, wherein the compound is of formula **I**:



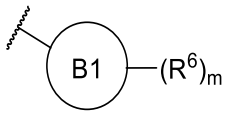
I

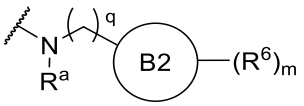
or is a pharmaceutically acceptable salt thereof, wherein:

Ring A is an optionally substituted group selected from HetAr and HetCy;

HetAr is a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen, and sulfur; wherein the 5- to 6-membered heteroaryl ring is not imidazole or pyrazole;

HetCy is a 4- to 7-membered saturated or partially unsaturated heterocyclic ring having 1 to 3 heteroatoms independently selected from nitrogen, oxygen, and sulfur.

R^2 is 

or 

;

each R^3 is independently halogen, -OR, -NR_2, -SR, or R^C, wherein at least one occurrence of R^3 is halogen;

Ring B1 is phenyl, preferably substituted phenyl; a 4- to 10-membered saturated or partially unsaturated monocyclic or bicyclic carbocyclic or heterocyclic ring having 1 to 3 heteroatoms independently selected from nitrogen, oxygen, and sulfur; or a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen, and sulfur;

Ring B2 is a 4- to 7-membered saturated or partially unsaturated carbocyclic or heterocyclic ring having 1 to 3 heteroatoms independently selected from nitrogen, oxygen, and sulfur; or a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen, and sulfur;

each R is independently hydrogen or an optionally substituted group selected from C_{1-6} aliphatic; benzyl; phenyl; a 4- to 10-membered saturated or partially unsaturated monocyclic or bicyclic carbocyclic or heterocyclic ring having 1 to 3 heteroatoms independently selected from nitrogen, oxygen, phosphorus, and sulfur; and a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen, phosphorus, and sulfur, or:

two R groups on the same nitrogen are optionally taken together with their intervening atoms to form an optionally substituted 4- to 7-membered saturated, partially unsaturated, or

heteroaryl ring having 0 to 3 heteroatoms, in addition to the nitrogen, independently selected from nitrogen, oxygen, phosphorus, and sulfur;

each R^6 is independently halogen, -COR, $-(CR_2)_{0-4}CO_2R$, $-(CR_2)_{0-4}CONR_2$, -OR, $-(CR_2)_{1-4}OR$, $-NR_2$, $-(CR_2)_{1-4}NR_2$, -NRC(O)OR, -NRC(O)R, $-NRC(O)NR_2$, -SR, $-SO_2R$, -S(O)R, $-(CR_2)_{0-4}SO_3R$, $-(CR_2)_{0-4}SO_2NR_2$, $-(CR_2)_{0-4}OSO_2NR_2$, $-(CR_2)_{0-4}NRSO_2R$, $-(CR_2)_{0-4}NRSO_2OR$, $-(CR_2)_{0-4}OP(OR)_2$, $-(CR_2)_{0-4}OP(O)(OR)_2$, $-(CR_2)_{0-4}P(O)(OR)_2$, $-(CR_2)_{0-4}OP(O)(H)OR$, $-B(OR)_2$, or R^B;

R^B and R^C, independently, are an optionally substituted group selected from C_{1-6} aliphatic; phenyl; a 4- to 10-membered saturated or partially unsaturated monocyclic or bicyclic carbocyclic or heterocyclic ring having 1 to 3 heteroatoms independently selected from nitrogen, oxygen, and sulfur; and a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen, and sulfur;

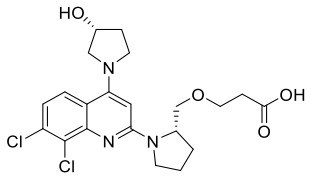
each R^a is independently H or C_{1-6} alkyl;

each m is 1, 2, 3, or 4;

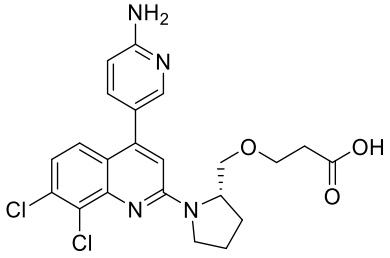
n is 1, 2, 3, or 4;

q is 0, 1, or 2;

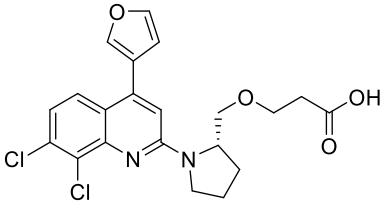
provided that the compound is not:



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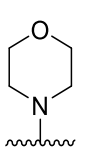
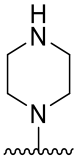
, and

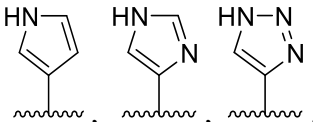
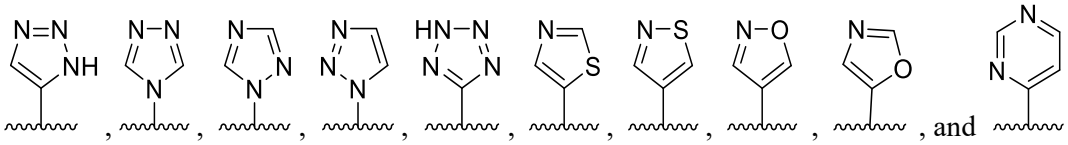


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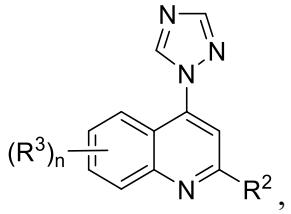
2. The compound of claim 1, wherein Ring A is an optionally substituted HetCy.

3. The compound of claim 1, wherein Ring A is an optionally substituted HetAr.

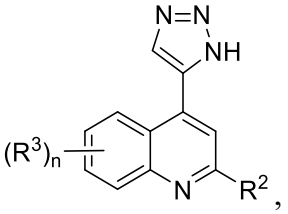
4. The compound of claim 1 or 2, wherein Ring A is selected from  and .

5. The compound of claim 1 or 3, wherein Ring A is selected from , , and .

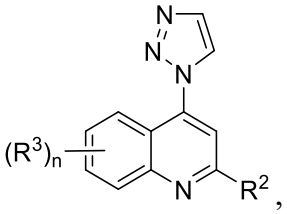
6. The compound of any one of claims 1, 3, or 5, wherein the compound is one of formula **I-d-1** to **I-d-5***:



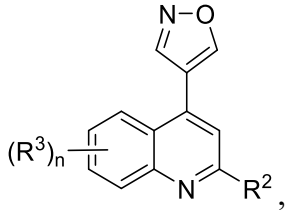
I-d-1



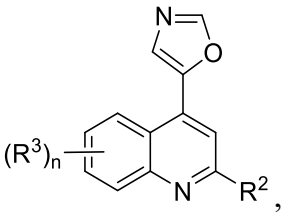
I-d-2



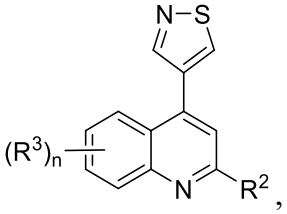
I-d-3



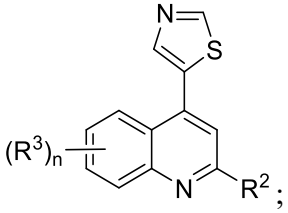
I-d-4



I-d-4*



I-d-5

or ;

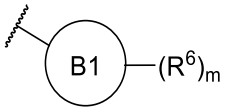
I-d-5*

or is a pharmaceutically acceptable salt thereof.

7. The compound of any one of claims 1-6, wherein at least one occurrence of R^3 is chloro.

8. The compound of any one of claims 1-6, wherein at least one occurrence of R^3 is bromo.

9. The compound of any one of claims 1-7, wherein n is 2 and both R^3 are chloro.

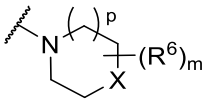
10. The compound of any one of claims 1-9, wherein R^2 is 

.

11. The compound of claim 10, wherein Ring B1 is substituted phenyl.

12. The compound of claim 10, wherein Ring B1 is a 4- to 10-membered saturated or partially unsaturated monocyclic or bicyclic carbocyclic or heterocyclic ring having 1 to 3 heteroatoms independently selected from nitrogen, oxygen, and sulfur.

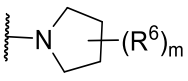
13. The compound of claim 10, wherein Ring B1 is a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen, and sulfur.

14. The compound of any one of claims 1-9, wherein R^2 is 

, wherein
X is absent (i.e., a bond in the ring), $-CR_2-$, -NR-, -O-, -S-, or $-SO_2-$; and
p is 0, 1, or 2.

15. The compound of claim 14, wherein p is 1.

16. The compound of any one of claims 10-15, wherein each R^6 is independently halogen, $=CH_2$, =O, $-C_{1-4}$alkyl, $-C_{1-4}$haloalkyl, $-(CH_2)_{0-4}CO_2H$, $-(CH_2)_{0-4}CO_2C_{1-4}$alkyl, $-(CH_2)_{0-4}CO_2C_{1-4}$haloalkyl, $-(CH_2)_{0-4}CONH_2$, $-(CH_2)_{0-4}CONHC_{1-4}$alkyl, $-(CH_2)_{0-4}CON(C_{1-4}alkyl)_2$, $-(CH_2)_{0-4}CO$(*N*-proline), $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CO_2H$, $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CONH_2$, $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CONHC_{1-4}$alkyl, $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CON(C_{1-4}alkyl)_2$, -OH, $-(CH_2)_{1-4}OH$, $-(CH_2)_{0-4}OC_{1-4}$alkyl, $-(CH_2)_{0-4}O(CH_2)_{1-5}CO_2H$, $-(CH_2)_{0-4}O(CH_2)_{1-5}CO_2C_{1-4}$alkyl, $-(CH_2)_{0-4}OC(O)C_{1-4}$alkyl, $-NH_2$, $-(CH_2)_{1-4}NH_2$, $-(CH_2)_{0-4}NHC_{1-4}$alkyl, $-(CH_2)_{0-4}N(C_{1-4}alkyl)_2$,$-(CH_2)_{0-4}SO_3H$, $-(CH_2)_{0-4}SO_2NH_2$, $-(CH_2)_{0-4}SO_2NHC_{1-4}$alkyl, $-(CH_2)_{0-4}NR^aSO_2C_{1-4}$alkyl, $-(CH_2)_{0-4}OP(OH)_2$, $-(CH_2)_{0-4}OP(OH)(OC_{1-4}alkyl)$, or $-(CR_2)_{0-4}OP(O)(H)OH$, wherein R^a, independently for each occurrence, is H or C_{1-4}alkyl.

17. The compound of any one of claims 1-9, wherein R^2 is 

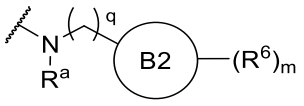
.

18. The compound of claim 17, wherein m is 1 or 2.

19. The compound of claim 17 or 18, wherein each R^6 is independently halogen, $=CH_2$, $-C_{1-4}$alkyl, $-C_{1-4}$haloalkyl, $-(CH_2)_{0-4}CO_2H$, $-(CH_2)_{0-4}CO_2C_{1-4}$alkyl, $-(CH_2)_{0-4}CO_2C_{1-4}$haloalkyl, $-(CH_2)_{0-4}CONH_2$, $-(CH_2)_{0-4}CONHC_{1-4}$alkyl, $-(CH_2)_{0-4}CON(C_{1-4}alkyl)_2$, $-(CH_2)_{0-4}CO$(*N*-proline), $-(CH_2)_{0-4}CO$(*N*-pyrrolidine-3-carboxylic acid), $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CO_2H$, $-(CH_2)_{0-4}C(O)NR^a$-$CH(C_{1-4}alkyl)$-CO_2H, $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CONH_2$, $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CONHC_{1-4}$alkyl, $-(CH_2)_{0-4}C(O)NR^a(CH_2)_{1-4}CON(C_{1-4}alkyl)_2$, -OH, $-(CH_2)_{1-4}OH$, $-(CH_2)_{0-4}OC_{1-4}$alkyl, $-(CH_2)_{0-4}O(CH_2)_{1-5}CO_2H$, $-(CH_2)_{0-4}O(CH_2)_{1-5}CO_2C_{1-4}$alkyl, $-(CH_2)_{0-4}OC(O)C_{1-4}$alkyl, $-NH_2$, $-(CH_2)_{1-4}NH_2$, $-(CH_2)_{0-4}NHC_{1-4}$alkyl, $-(CH_2)_{0-4}NR^aC(O)C_{1-4}$alkyl, $-(CH_2)_{0-4}NR^aC(O)Ph$, $-(CH_2)_{0-4}NR^aCO(CH_2)_{1-4}OH$, $-(CH_2)_{0-4}N(C_{1-4}alkyl)_2$, $-(CH_2)_{0-4}SO_3H$, $-(CH_2)_{0-4}SO_2NH_2$, $-(CH_2)_{0-4}SO_2NR^aC_{1-4}$alkyl, $-(CH_2)_{0-4}NR^aSO_2C_{1-4}$alkyl, $-(CH_2)_{0-4}NR^aSO_2Ph$, $-(CH_2)_{0-4}NR^aSO_2(CH_2)_{1-4}CO_2H$, $-(CH_2)_{0-4}OP(OH)_2$, $-(CH_2)_{0-4}OP(OH)(OC_{1-4}alkyl)$, or $-(CR_2)_{0-4}OP(O)(H)OH$, wherein R^a, independently for each occurrence, is H or C_{1-6}alkyl.

20. The compound of claim 10, wherein Ring B1 is a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen and sulfur, wherein a carbon atom of the 5- to 6-membered heteroaryl ring is directly bonded to the carbon at the 2-position of the quinolone ring.

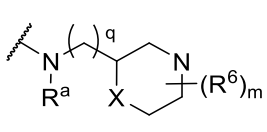
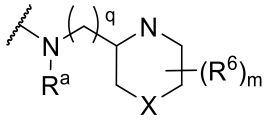
21. The compound of claim 13, wherein Ring B1 is imidazole or pyrazole.

22. The compound of any one of claims 1-9, wherein R^2 is 

.

23. The compound of claim 22, wherein Ring B2 is a 4- to 7-membered saturated or partially unsaturated carbocyclic or heterocyclic ring having 1 to 3 heteroatoms independently selected from nitrogen, oxygen, and sulfur.

24. The compound of claim 22, wherein Ring B2 is a 5- to 6-membered heteroaryl ring having 1 to 4 heteroatoms independently selected from nitrogen, oxygen, and sulfur.

25. The compound of claim 22, wherein R^2 is  or , wherein

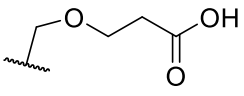
X is absent (i.e., a bond in the ring), $-CR_2-$, -NR-, -O-, -S-, or $-SO_2-$; and

m is 1, 2, 3, or 4.

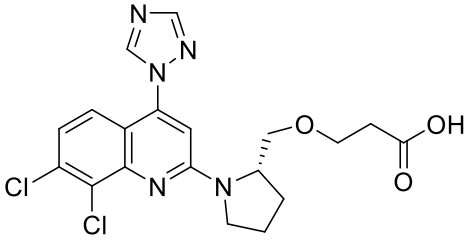
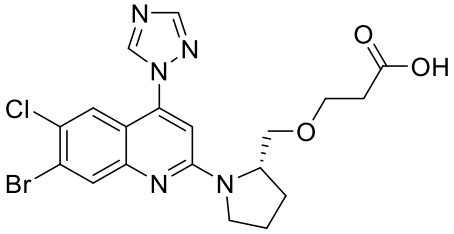
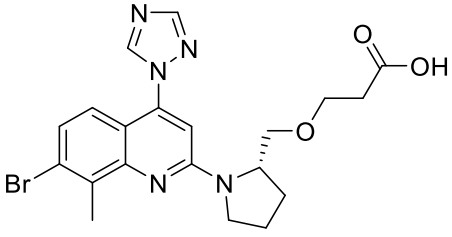
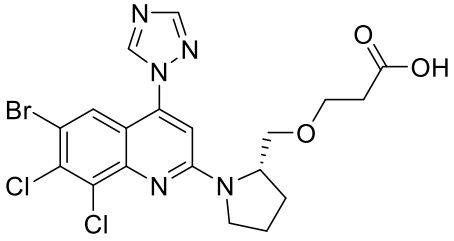
26. The compound of any one of claims 1-25, wherein R^6 is not R^B.

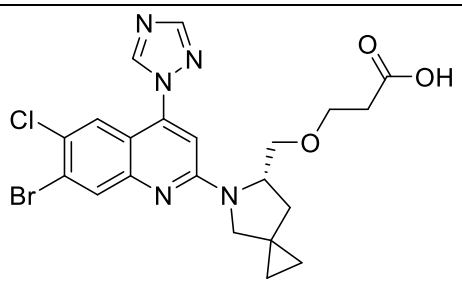
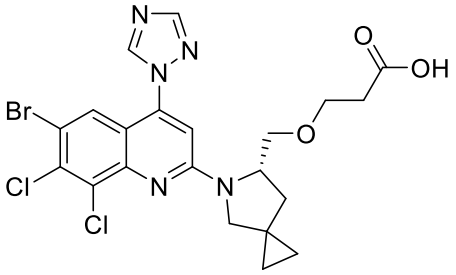
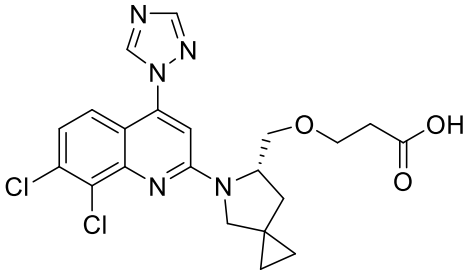
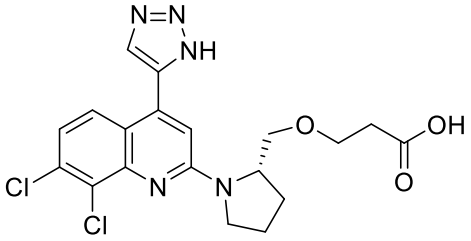
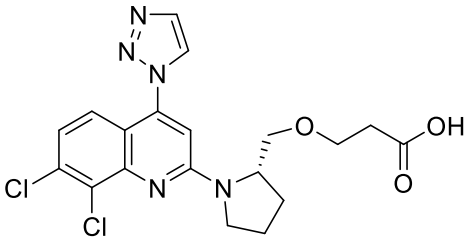
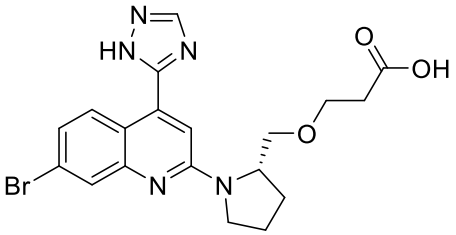
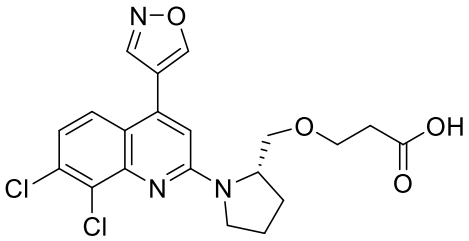
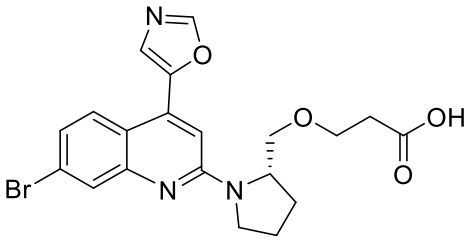
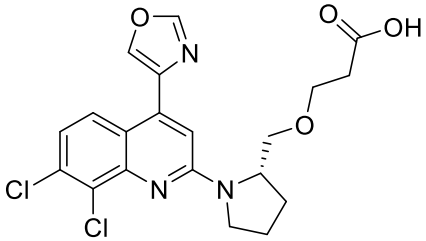
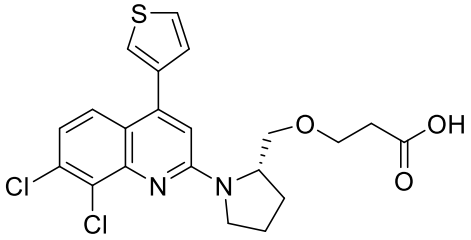
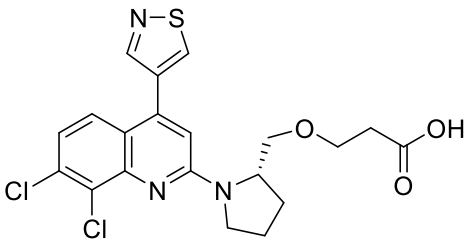
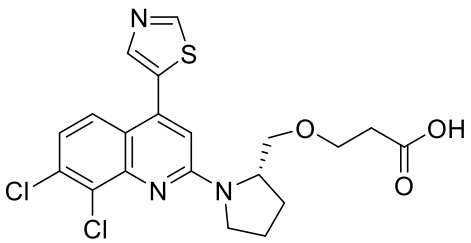
27. The compound of any one of claims 1-26, wherein at least one R^6 includes a terminal $-CO_2H$ or $-CO_2C_{1-4}$alkyl group.

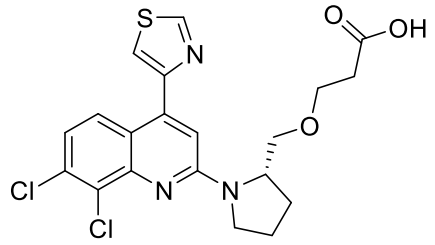
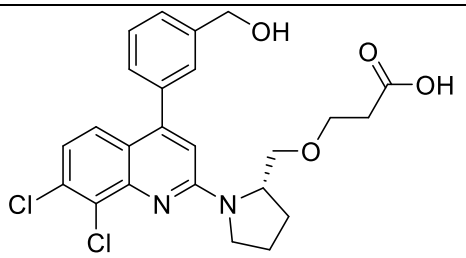
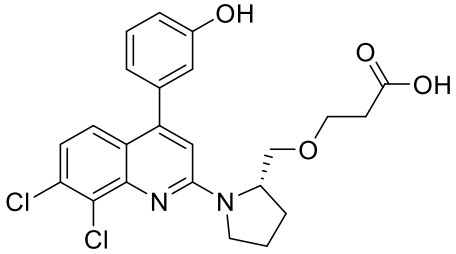
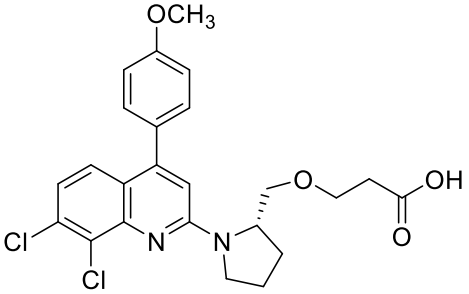
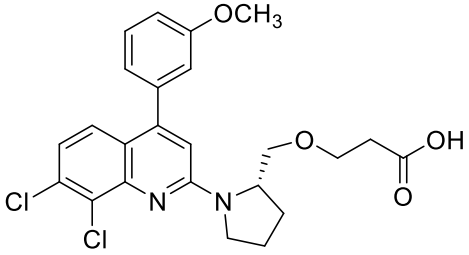
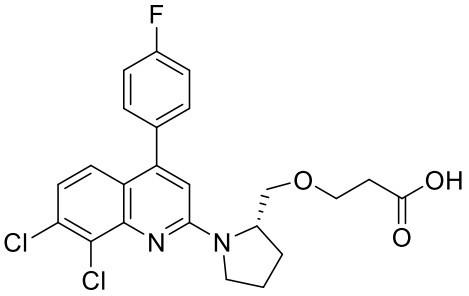
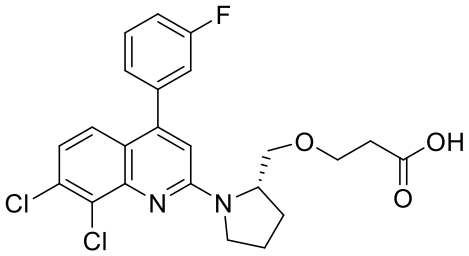
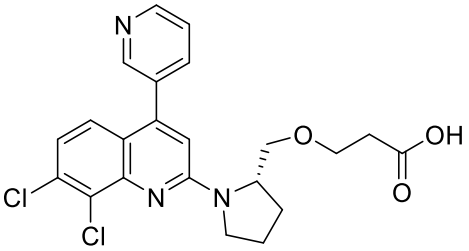
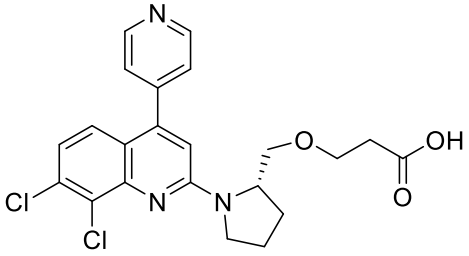
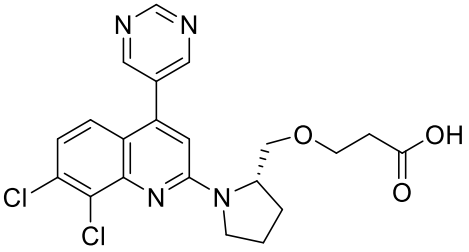
28. The compound of claim 27, wherein at least one R^6 is $-(CH_2)_{0-4}O(CH_2)_{1-5}CO_2H$, $-(CH_2)_{0-4}O(CH_2)_{1-5}CO_2C_{1-4}$alkyl, $-(CH_2)_{0-4}CO_2H$ or $-(CH_2)_{0-4}CO_2C_{1-4}$alkyl.

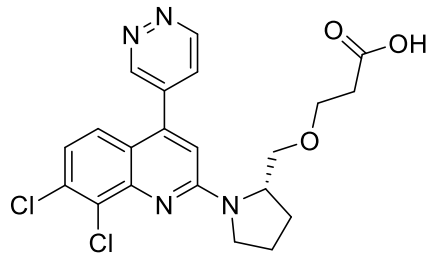
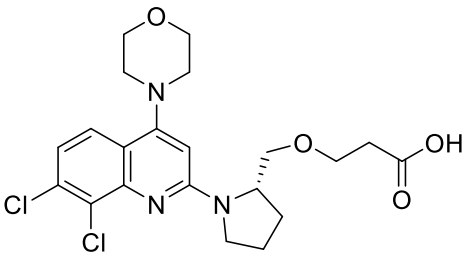
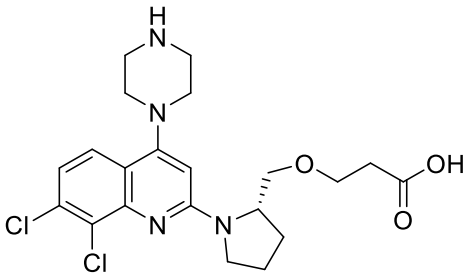
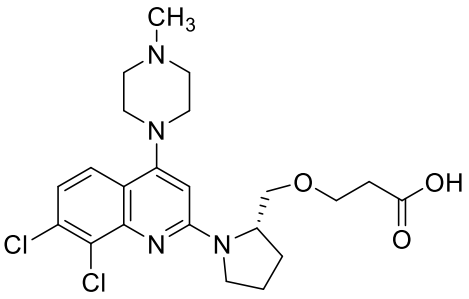
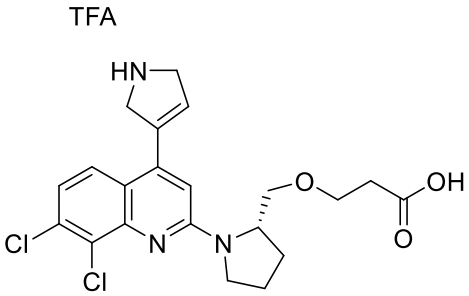
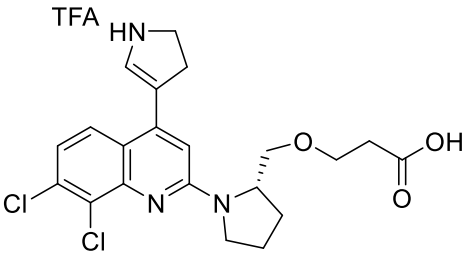
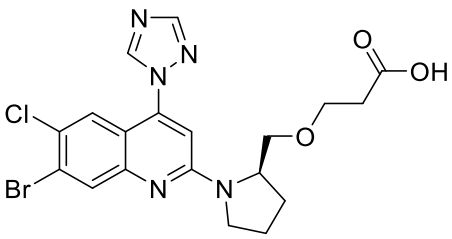
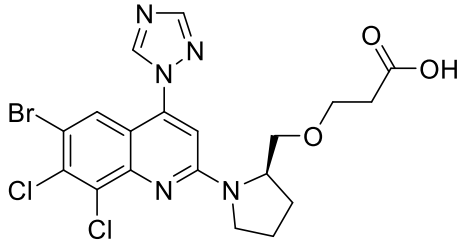
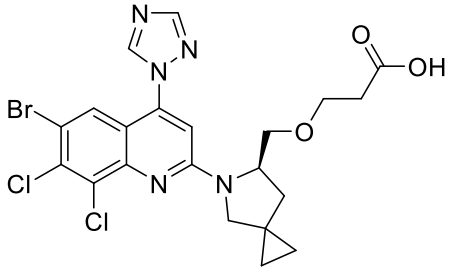
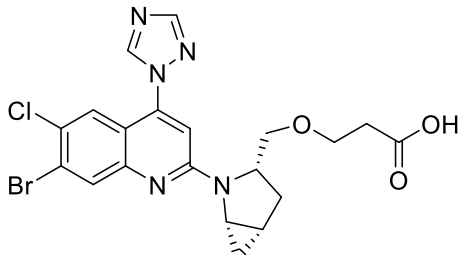
29. The compound of claim 27, wherein at least one R^6 is .

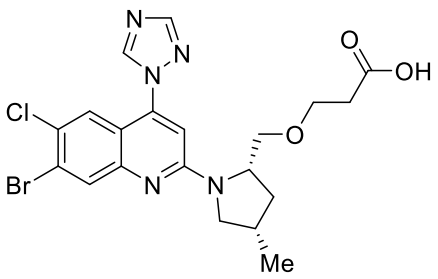
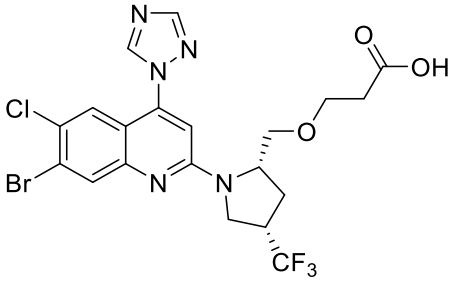
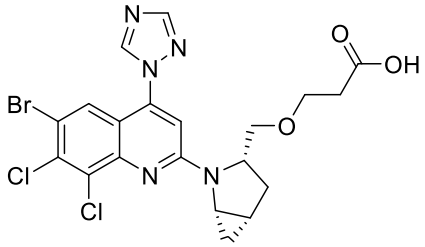
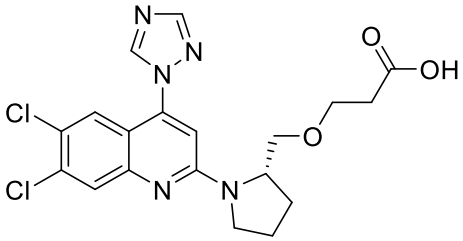
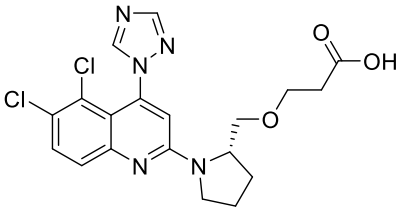
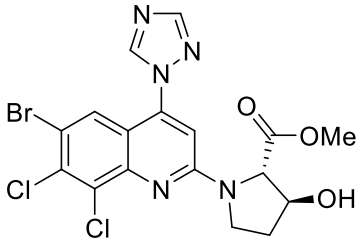
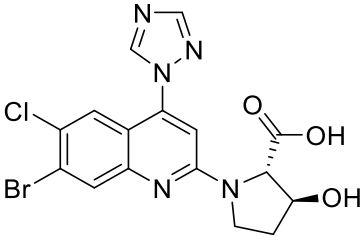
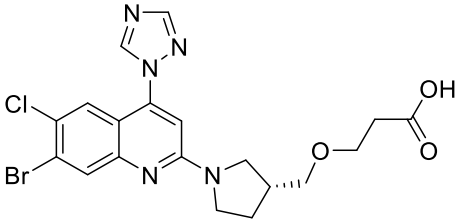
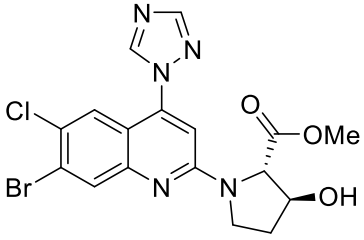
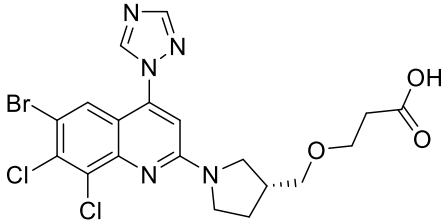
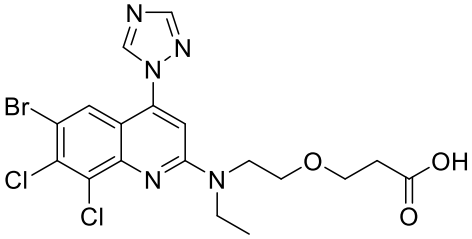
30. A compound, wherein the compound is selected from:

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I-894		**I-895**	

I-#	Structure	I-#	Structure
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I-898		**I-899**	
I-900		**I-901**	
I-902		**I-903**	
I-904		**I-905**	
I-906		**I-907**	

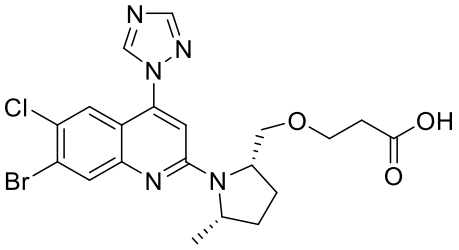
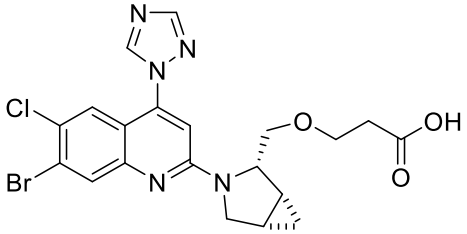
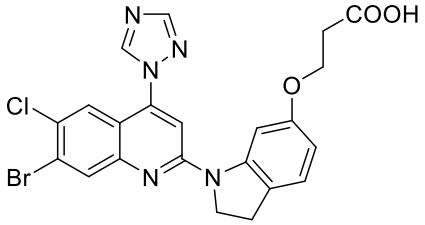
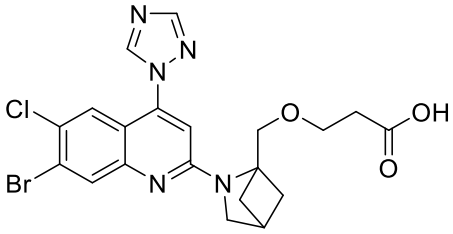
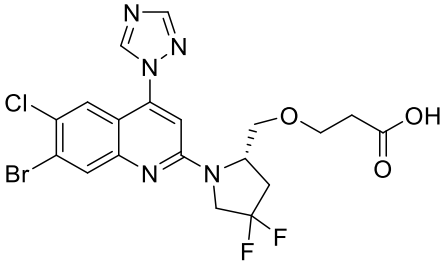
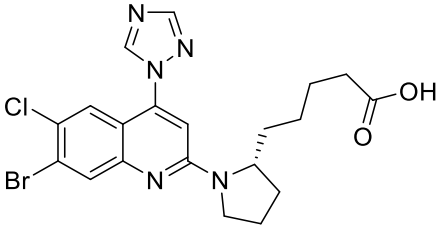
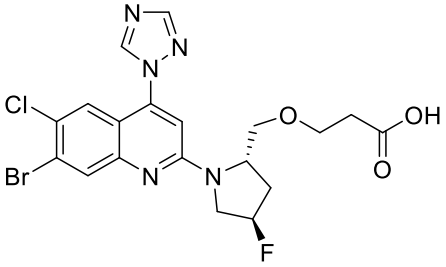
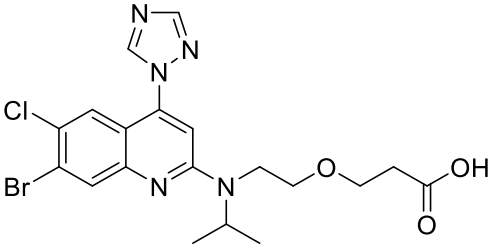
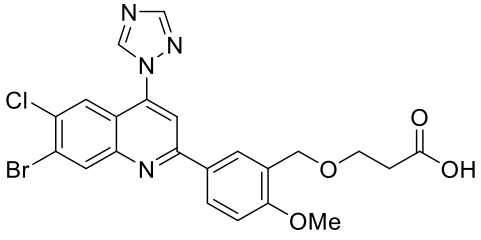
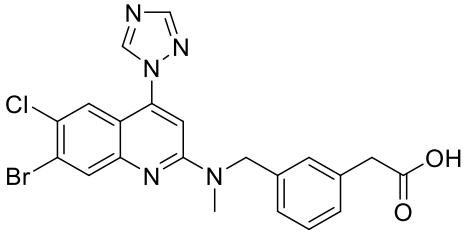
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I-910		**I-911**	
I-912		**I-913**	
I-914		**I-915**	
I-916		**I-917**	

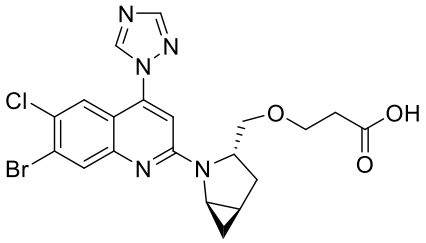
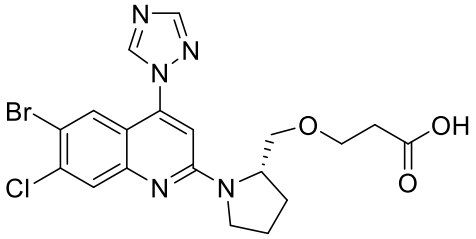
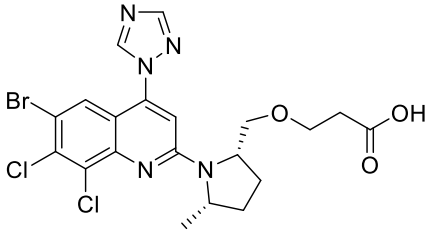
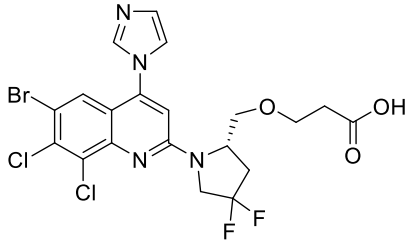
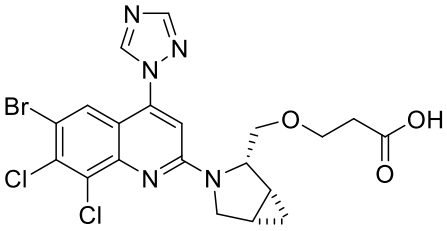
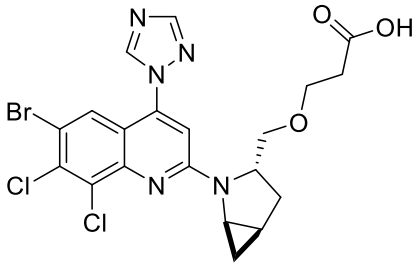
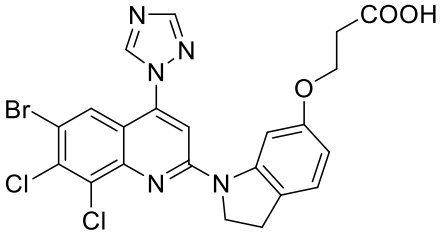
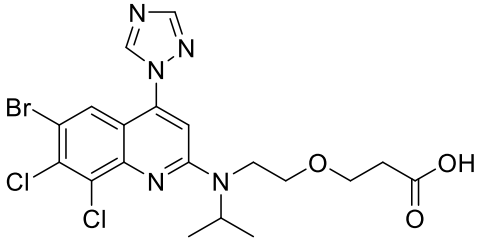
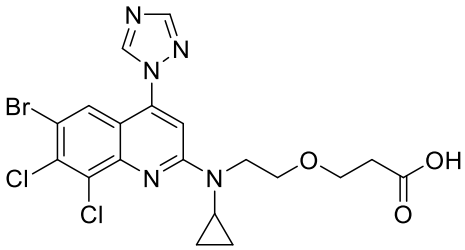
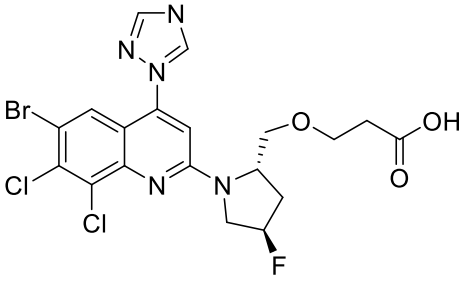
I-#	Structure	I-#	Structure
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I-920		**I-921**	
I-922		**I-923**	
I-924		**I-925**	
I-926		**I-927**	

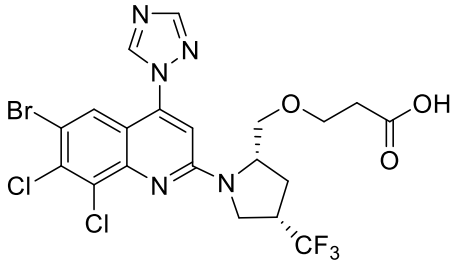
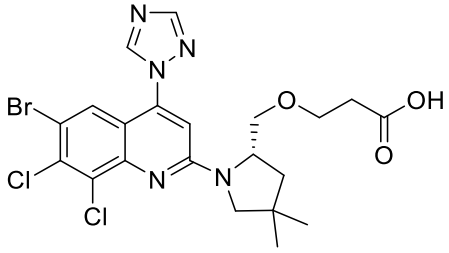
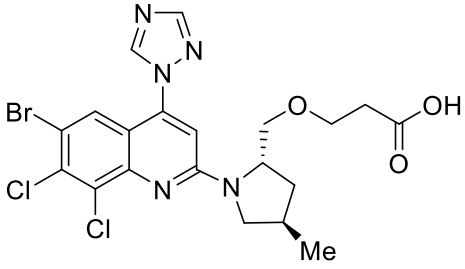
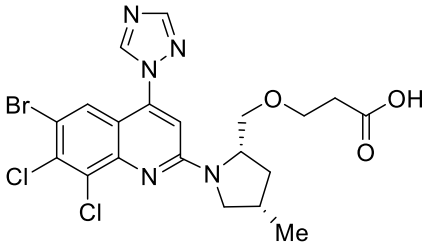
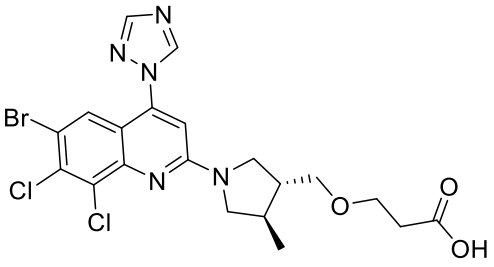
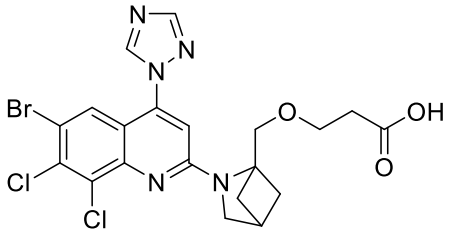
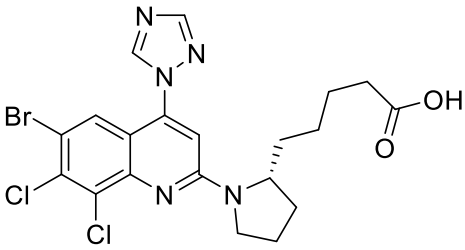
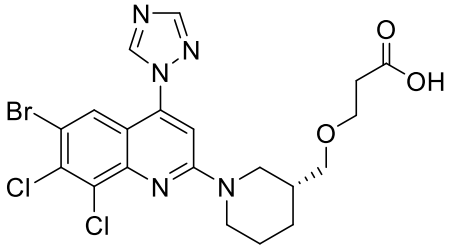
I-#	Structure	I-#	Structure
I-928		**I-929**	
I-930		**I-931**	
I-932		**I-933**	
I-934		**I-935**	
I-936		**I-937**	
I-938			

or is a pharmaceutically acceptable salt thereof.

31. A compound, wherein the compound is selected from:

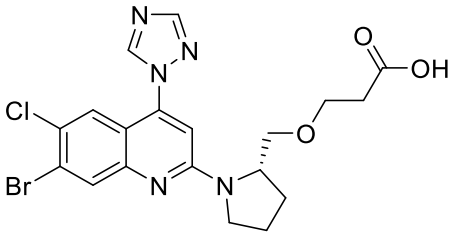
I-#	Structure	I-#	Structure
I-939		**I-940**	
I-941		**I-942**	
I-943		**I-944**	
I-945		**I-946**	
I-947		**I-948**	

I-#	Structure	I-#	Structure
I-949		**I-950**	
I-951	 **T1**	**I-952**	 **T2**
I-953	 **T3**	**I-954**	 **T4**
I-955		**I-956**	
I-957		**I-958**	

I-#	Structure	I-#	Structure
I-959		**I-960**	
I-961		**I-962**	
I-963		**I-964**	
I-965		**I-966**	

or is a pharmaceutically acceptable salt thereof.

32. The compound of claim 30, wherein the compound is:

I-893  , or is a pharmaceutically acceptable salt thereof.

33. A pharmaceutical composition comprising a compound of any one of claims 1-32.

34. Use of a compound of any one of claims 1-32 or a pharmaceutical composition of claim 33 in the manufacture of a medicament for antagonizing cyclic GMP-AMP synthase (cGAS) in a patient in need thereof.

35. Use of a compound of any one of claims 1-32 or a pharmaceutical composition of claim 33 in the manufacture of a medicament for the treatment of an inflammatory, allergic, autoimmune, ocular inflammation, cardiovascular, or neurodegenerative disease.

36. A compound of any one of claims 1-32 for use in therapy.