cardiovascular diseases, fatty acid metabolism and glucose utilization disorders, gastrointestinal diseases and liver diseases.

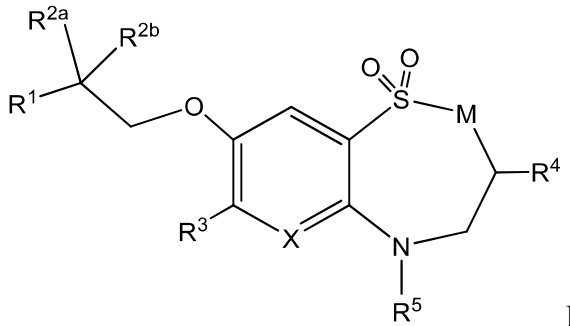
WO2023237728 to Albireo relates to methods for treating hepatitis B and/or D with an Na+/taurocholate co-transporting polypeptide (NTCP) inhibitor such as a compound of formula (I), or a pharmaceutically acceptable salt thereof, or a compound of formula (II), or a pharmaceutically acceptable salt thereof. Such methods can include decreasing the concentration of hepatitis B DNA, decreasing the concentration of hepatitis D DNA, decreasing hepatitis B surface antigen, and decreasing hepatitis B core antigen (HBcAg).

NTCP functions as a cellular receptor for viral entry of HBV and HDV, which in turn is the major cause of liver disease and HCC. There is a need for additional bile acid modulating compounds that have an improved profile with respect to potency, safety, selectivity and/or bioavailability.

SUMMARY

The present disclosure provides, in part, benzothia(dia)zepine compounds and pharmaceutical compositions thereof, useful for inhibition of HBV or HDV replication, inhibition of HBV or HDV viral entry, and methods of treating HBV infections, HDV infection or HBV/HDV coinfection.

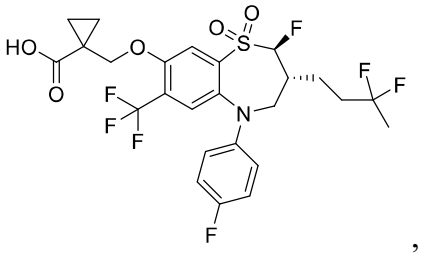
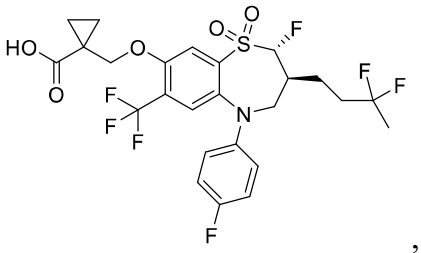
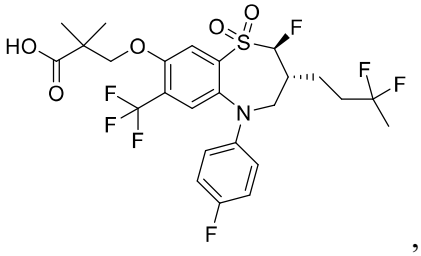
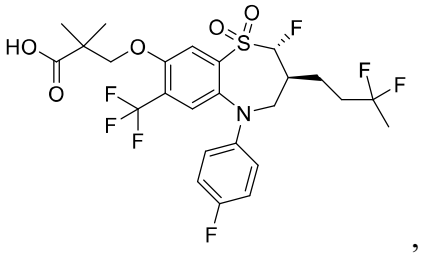
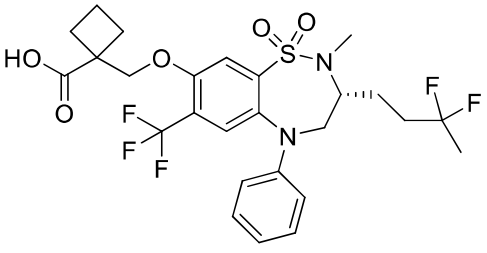
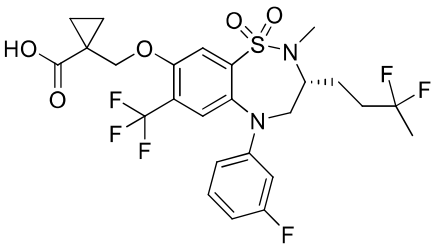
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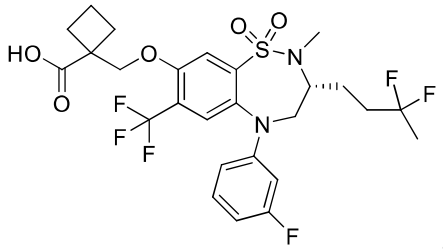
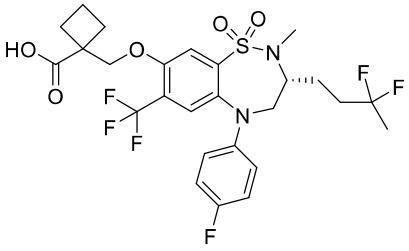
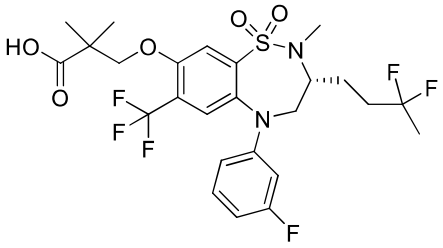
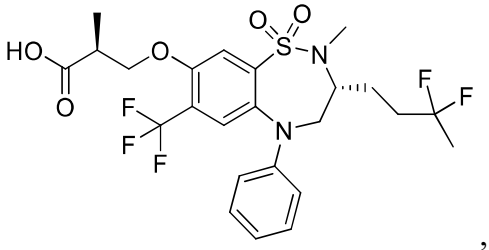
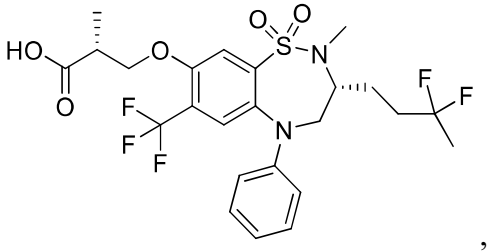
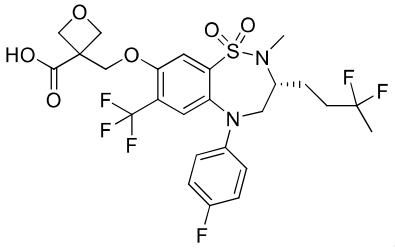


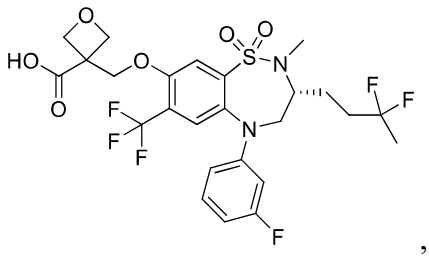
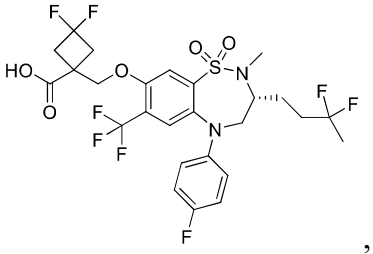
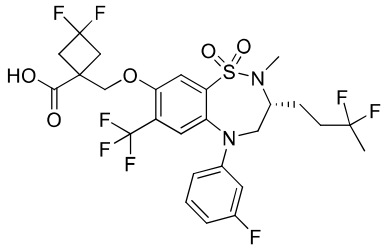
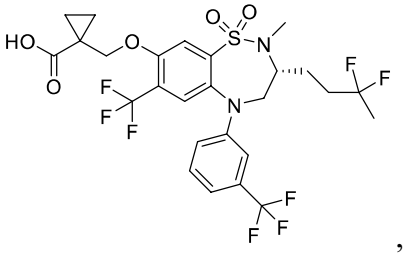
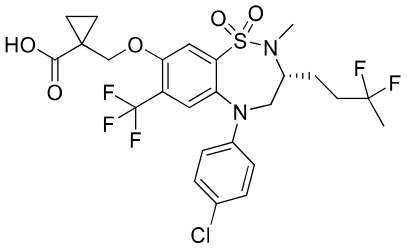
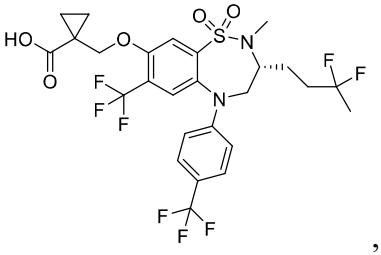
Formula I

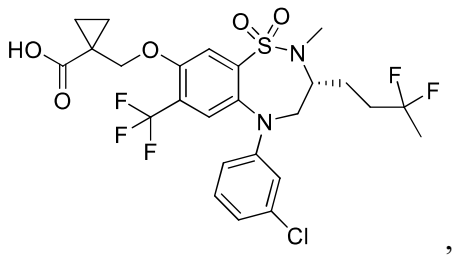
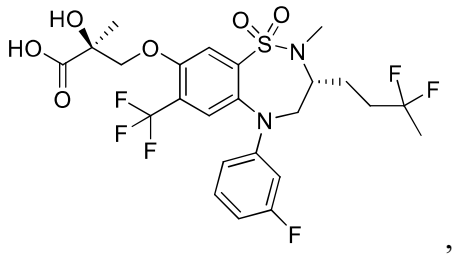
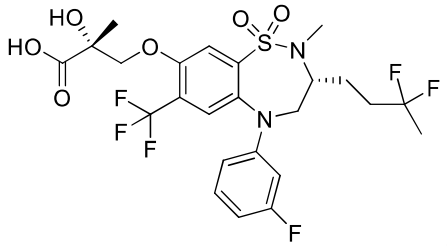
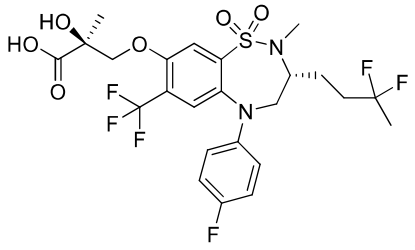
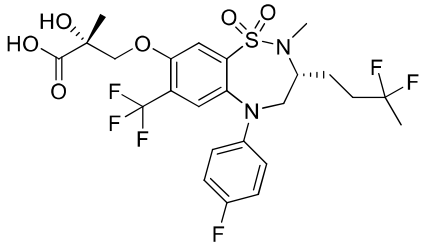
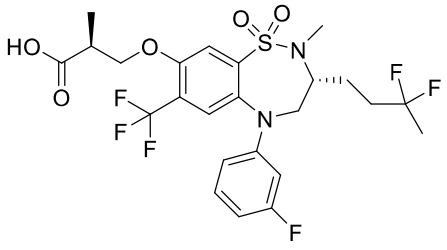
or a pharmaceutically acceptable salt thereof, where the variables are described in the detailed description.

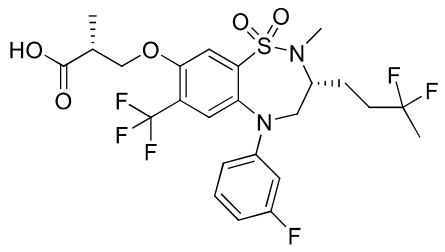
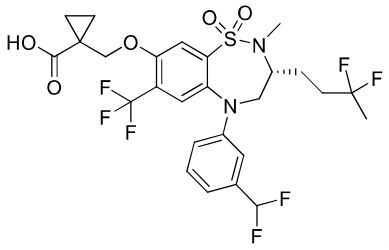
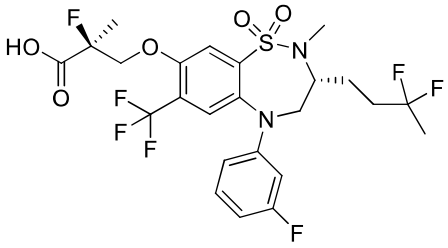
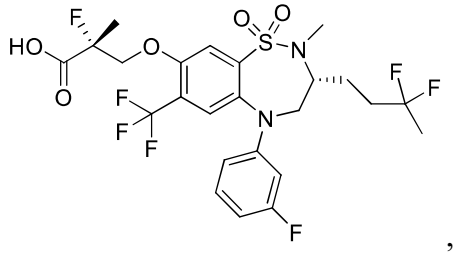
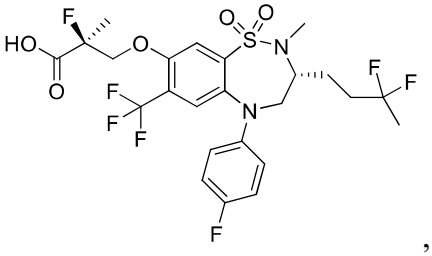
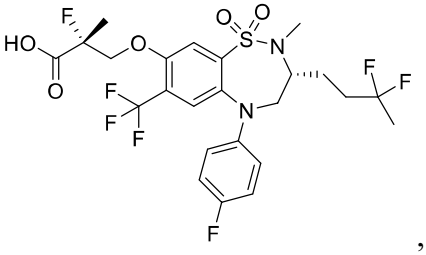
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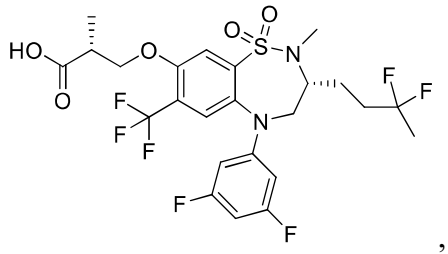
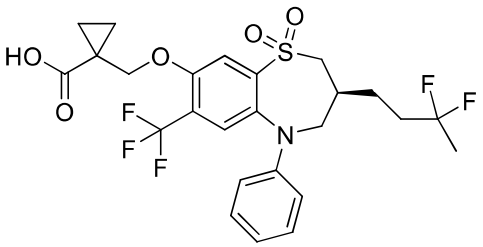
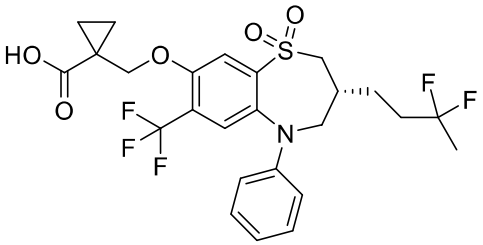
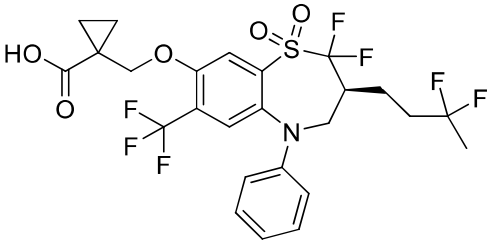
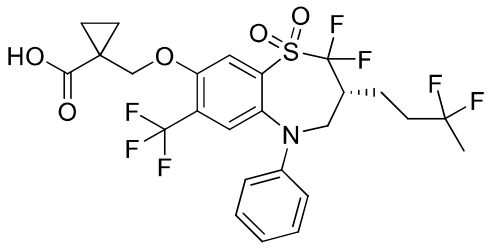
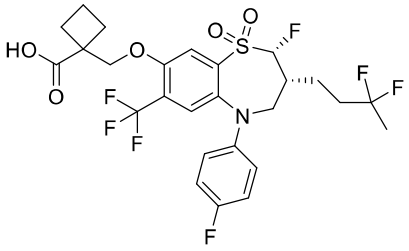
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10c	 ,
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28	 ,

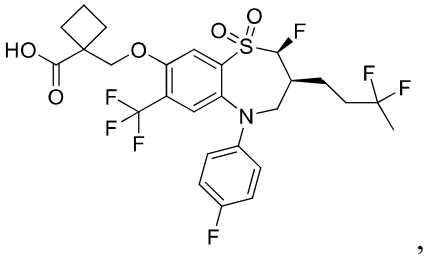
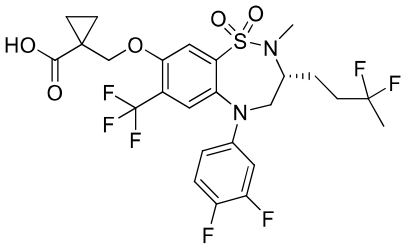
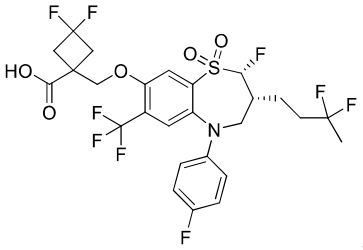
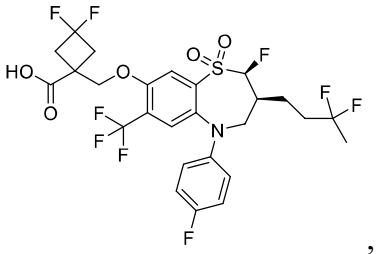
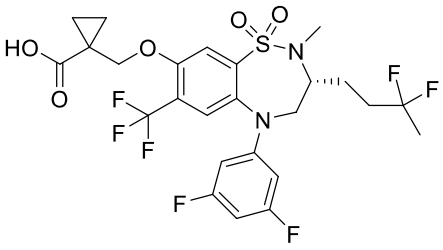
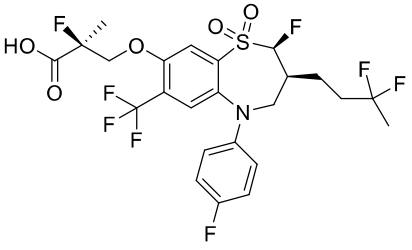
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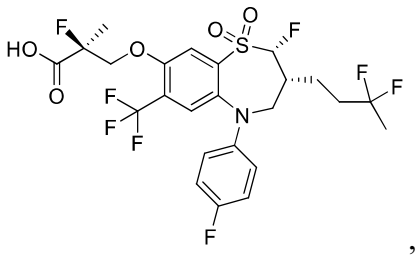
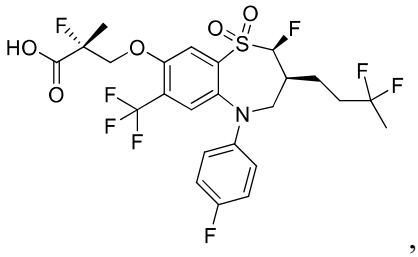
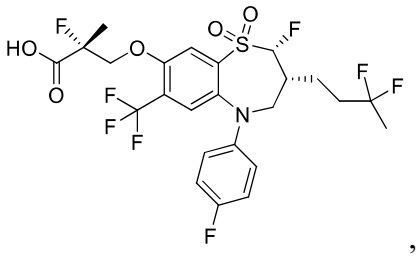
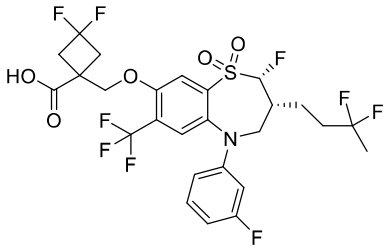
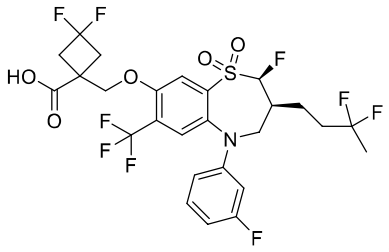
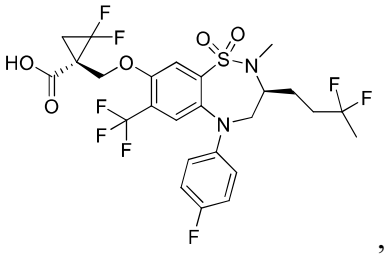
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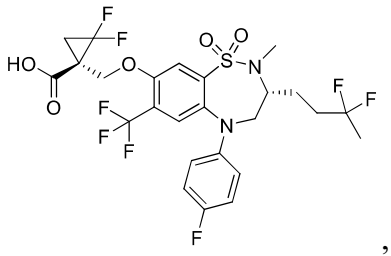
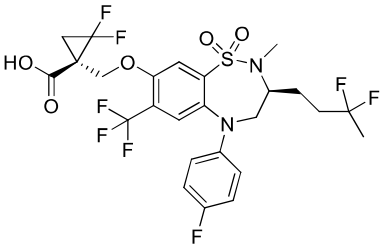
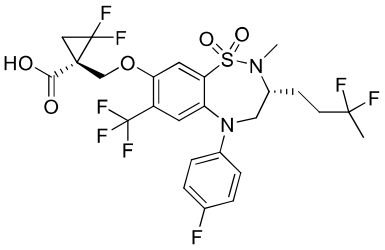
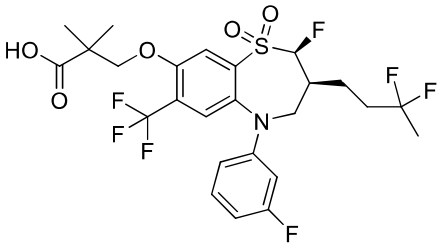
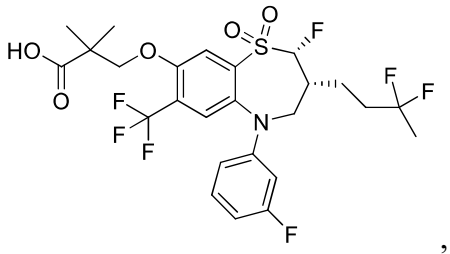
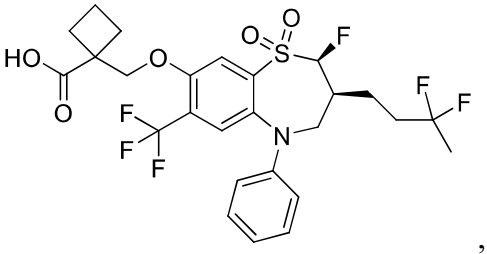
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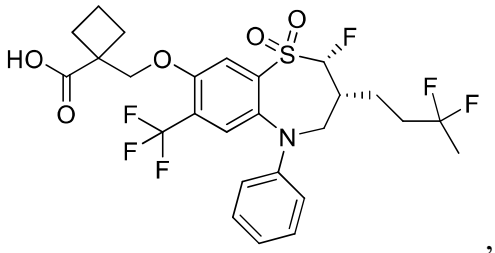
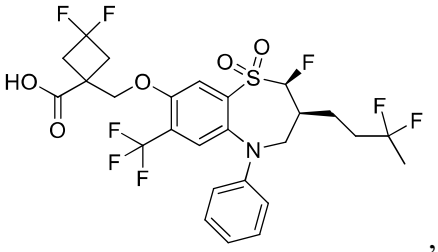
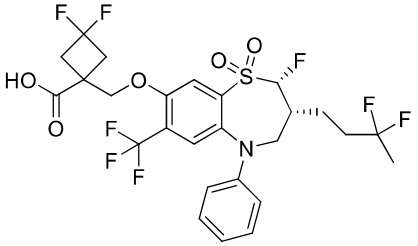
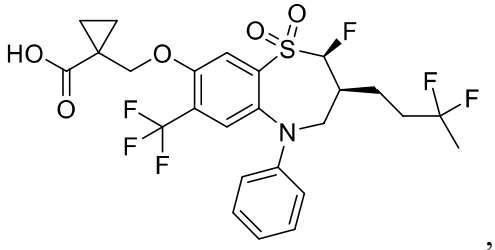
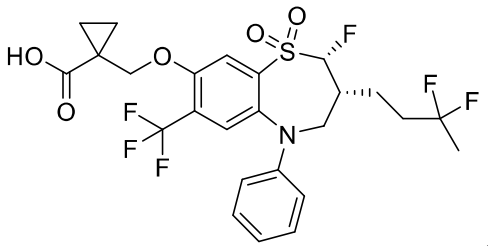
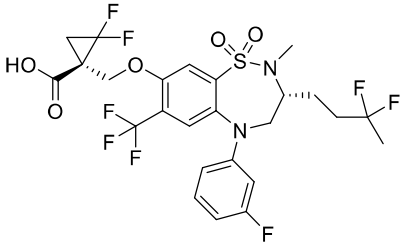
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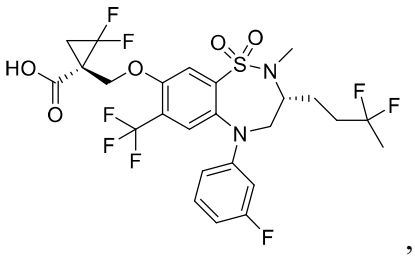
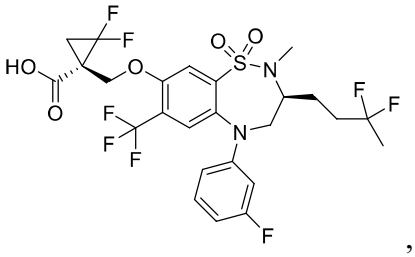
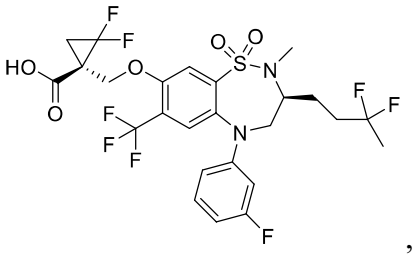
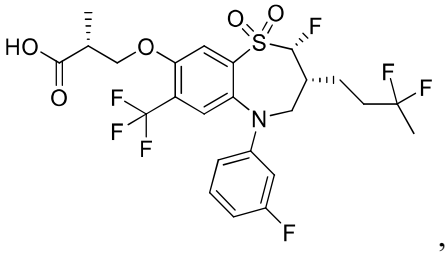
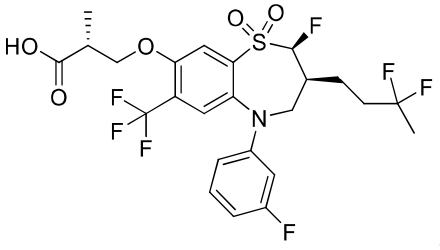
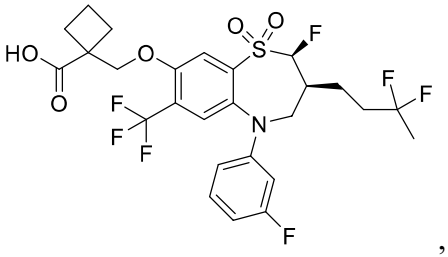
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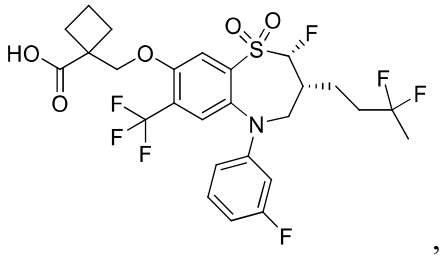
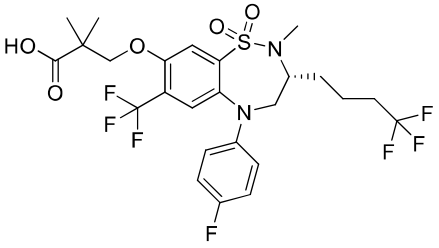
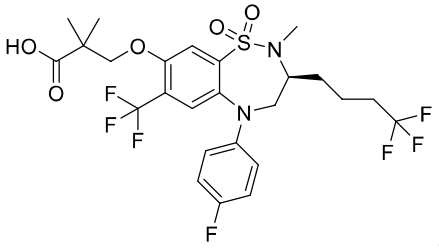
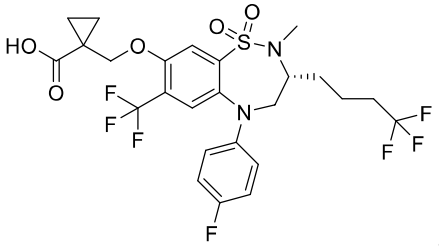
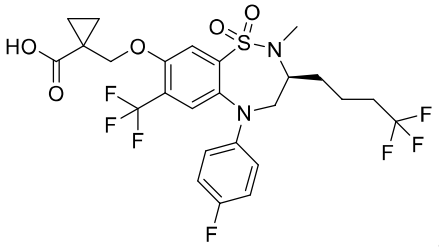
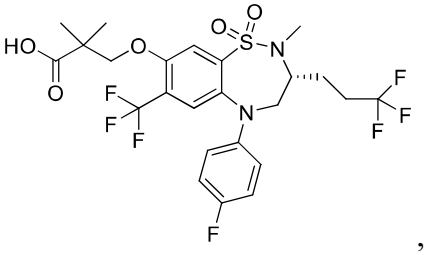
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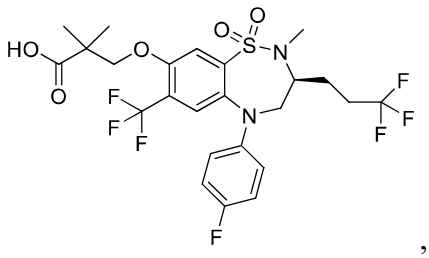
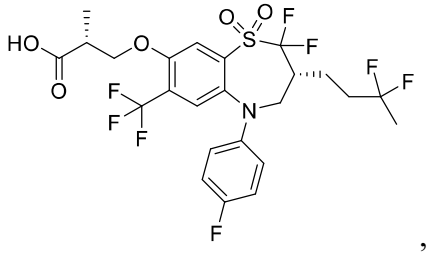
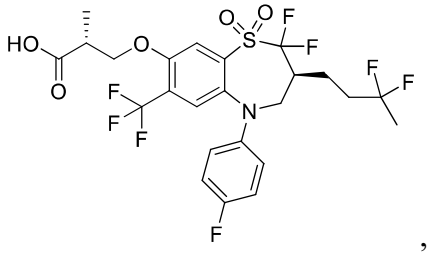
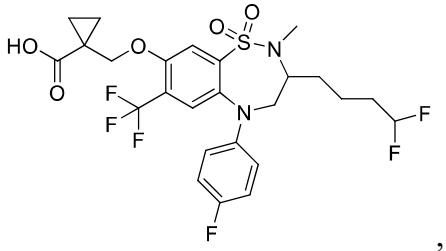
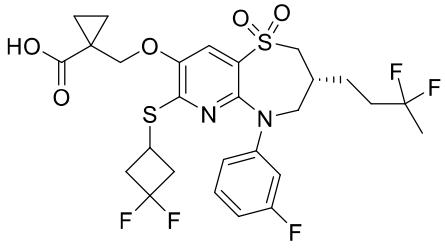
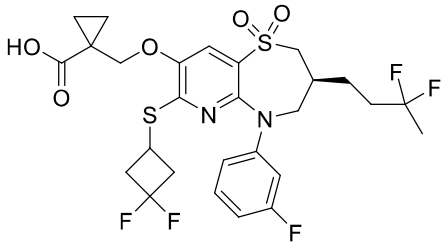
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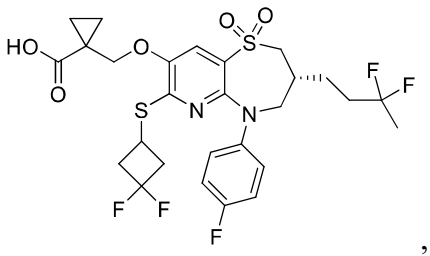
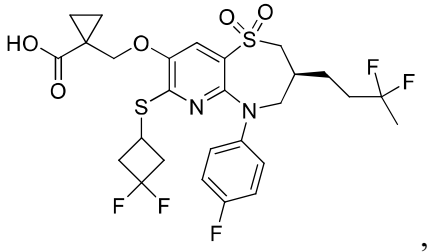
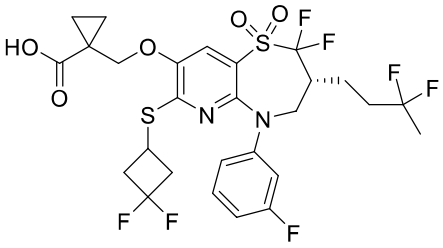
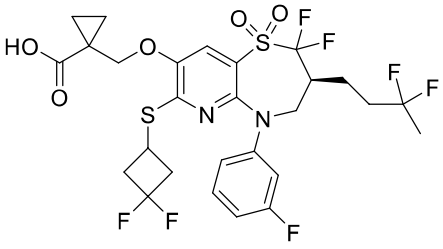
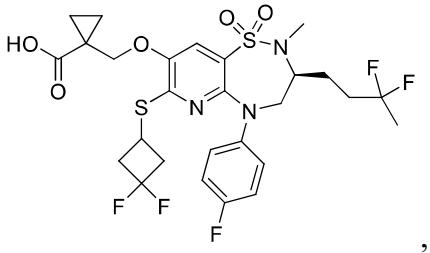
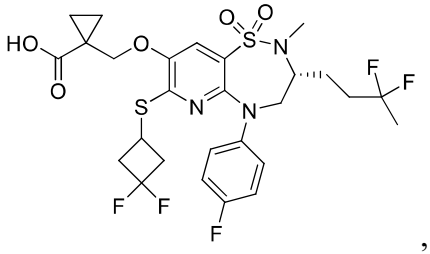
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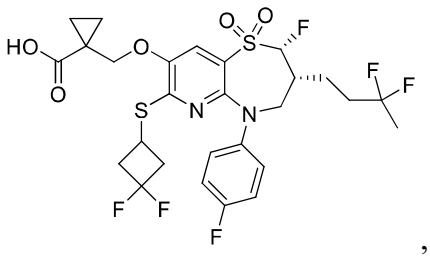
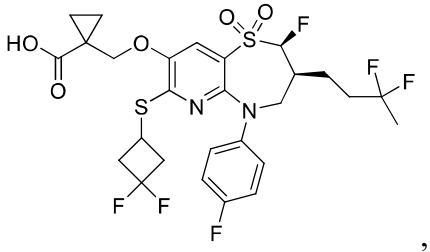
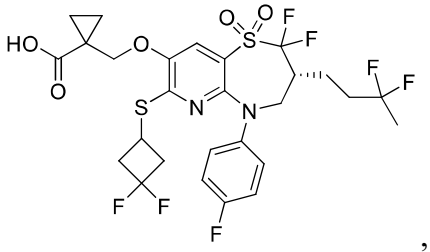
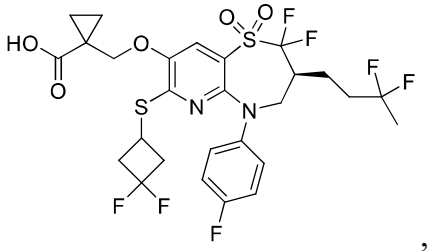
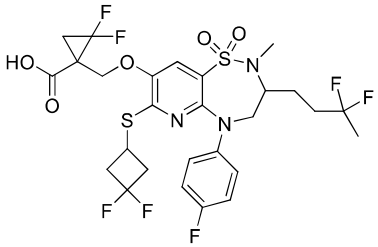
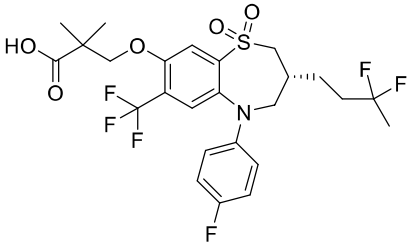
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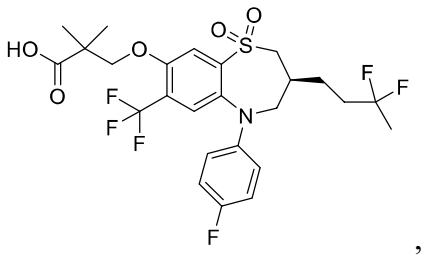
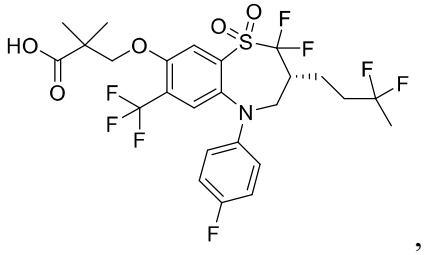
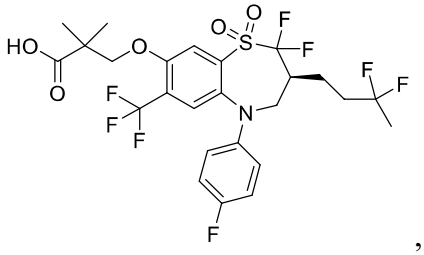
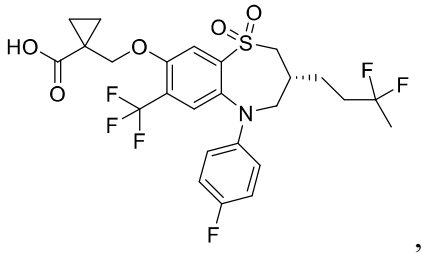
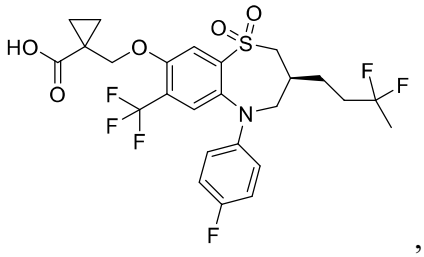
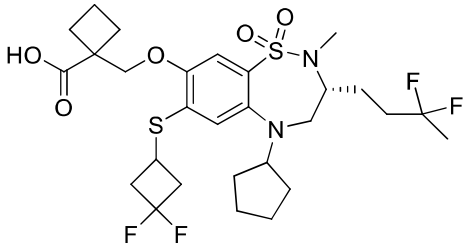
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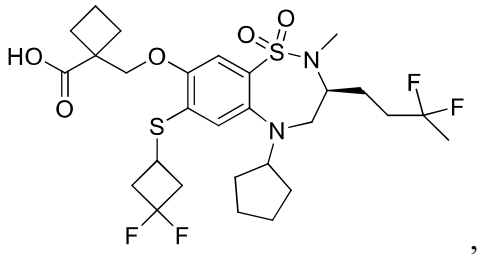
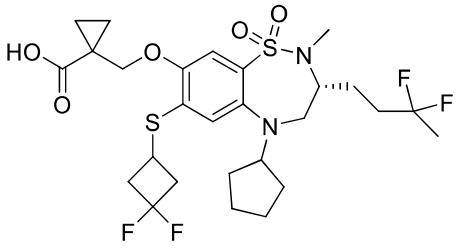
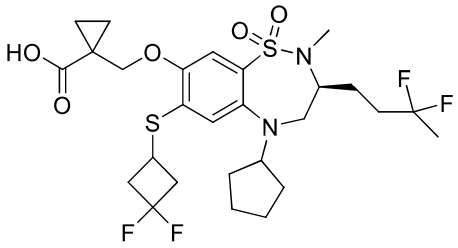
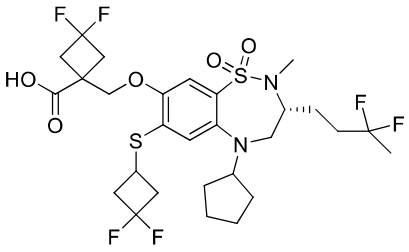
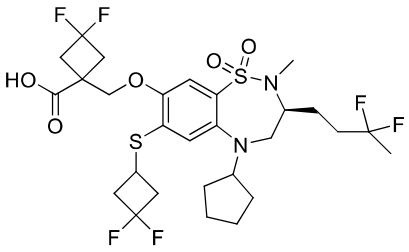
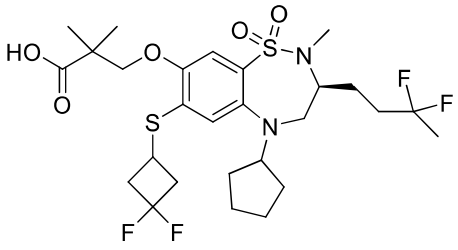
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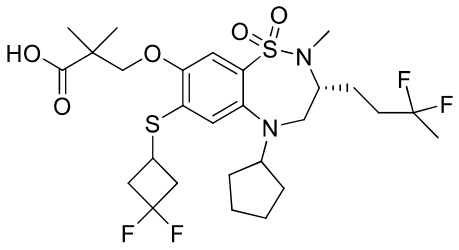
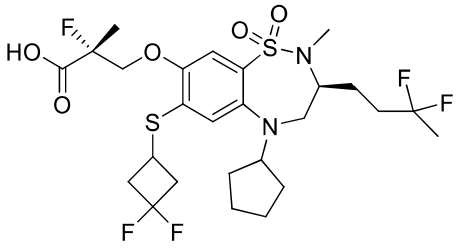
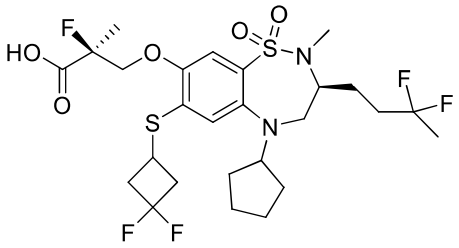
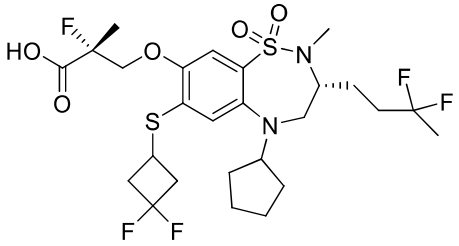
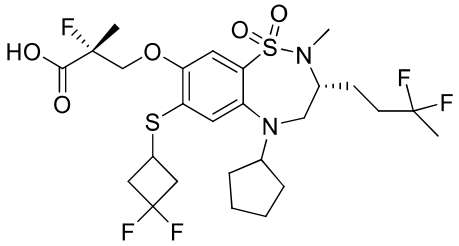
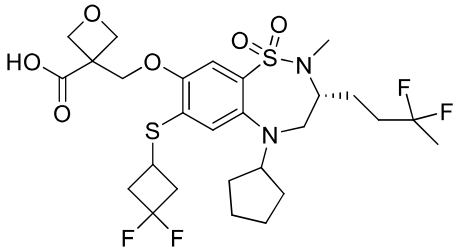
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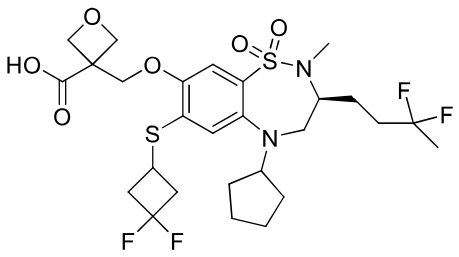
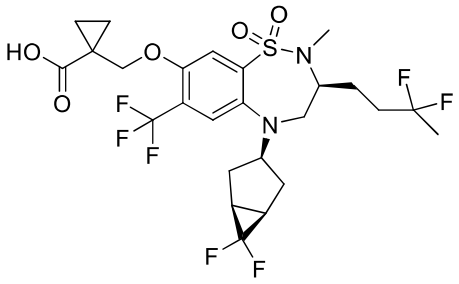
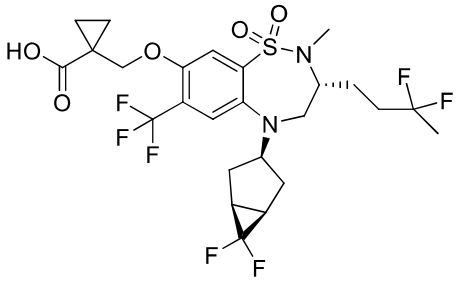
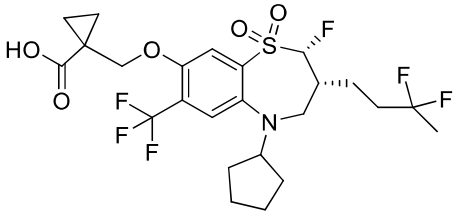
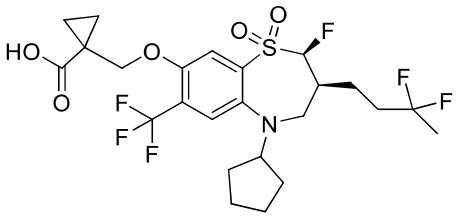
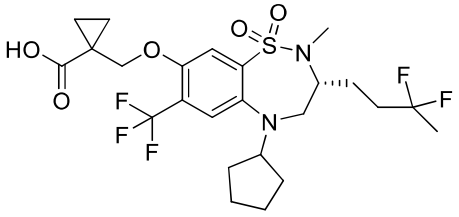
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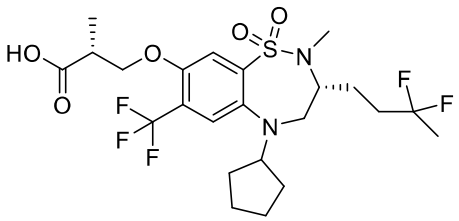
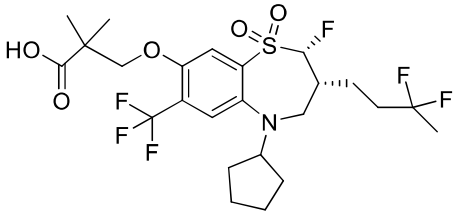
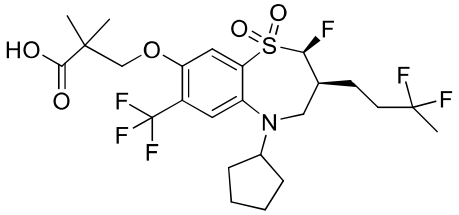
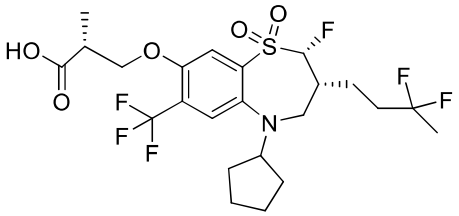
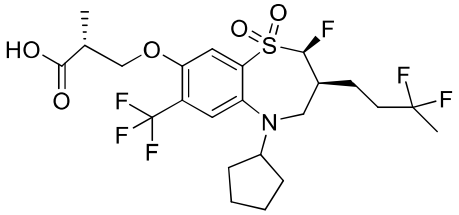
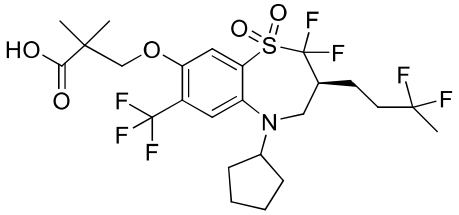
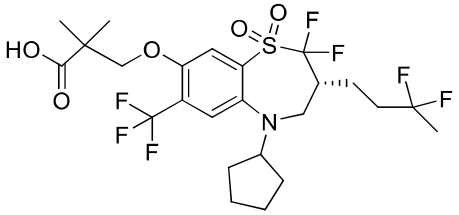
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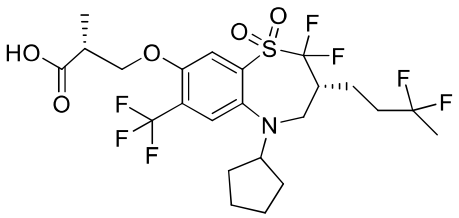
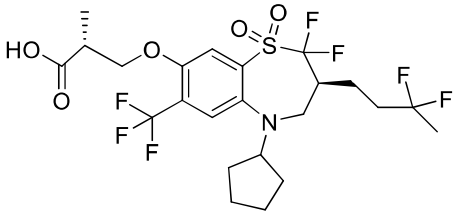
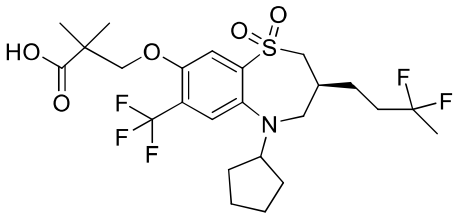
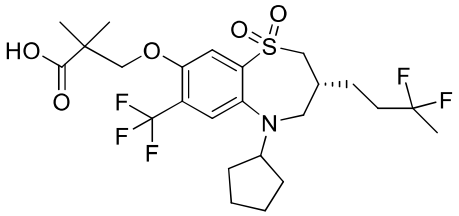
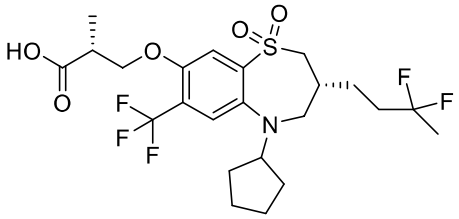
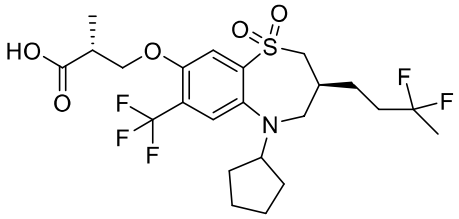
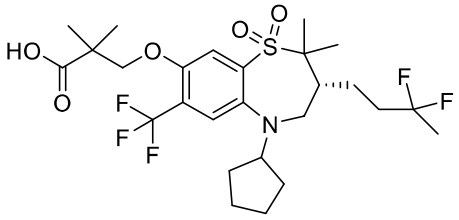
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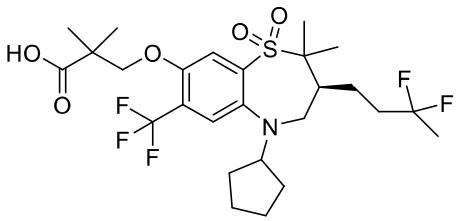
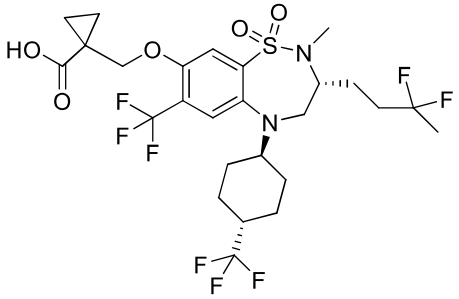
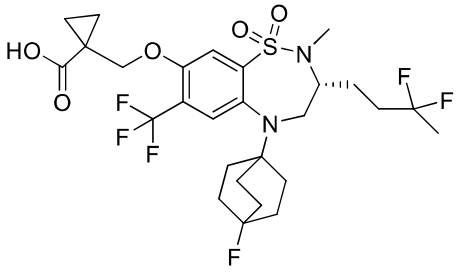
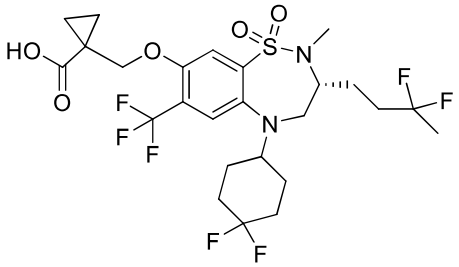
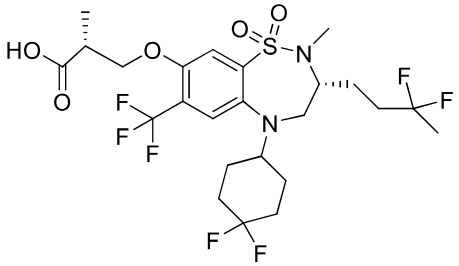
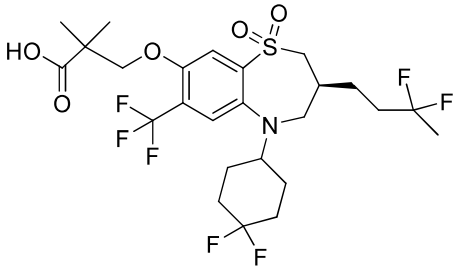
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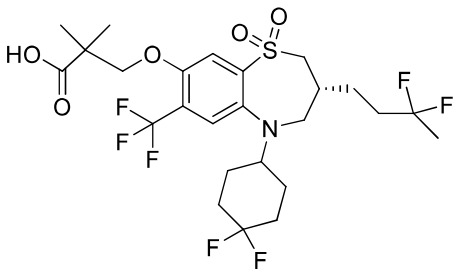
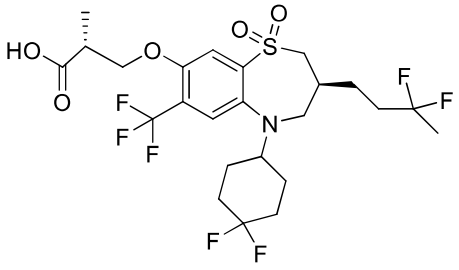
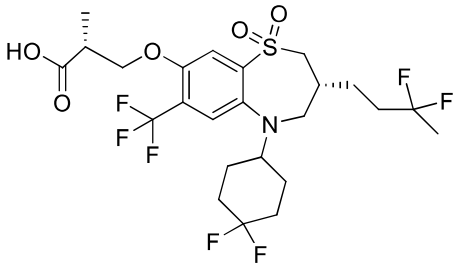
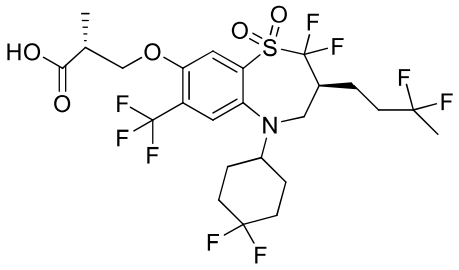
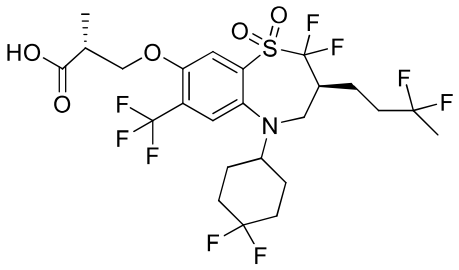
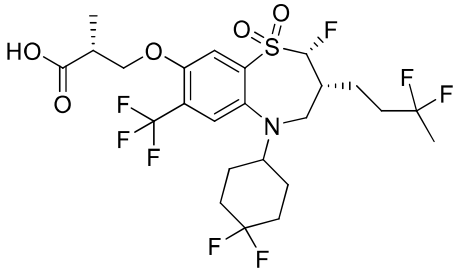
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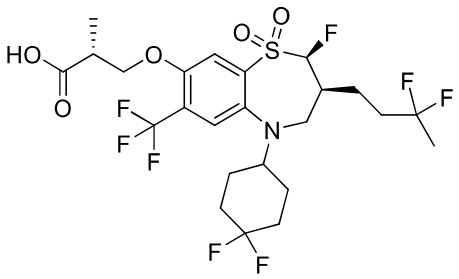
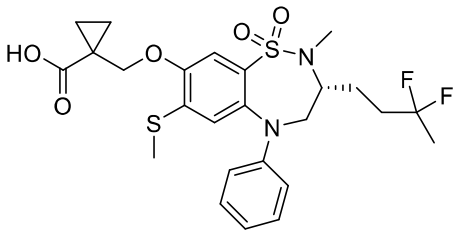
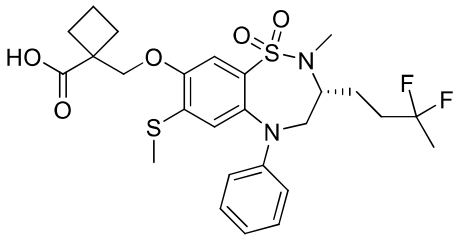
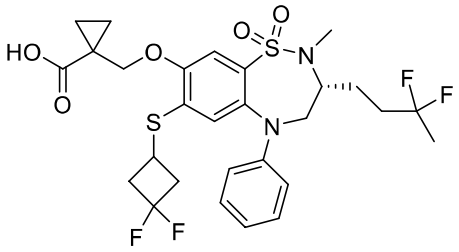
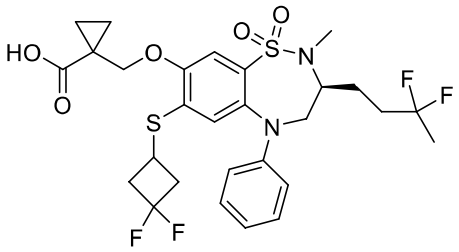
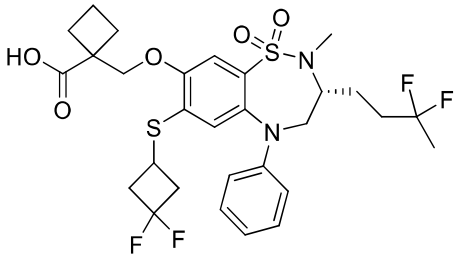
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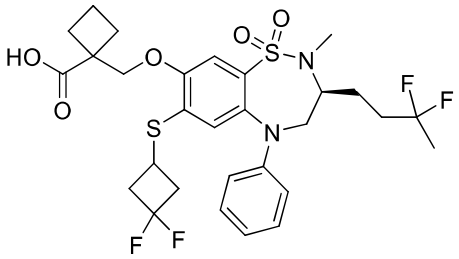
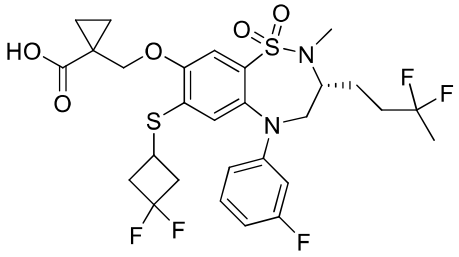
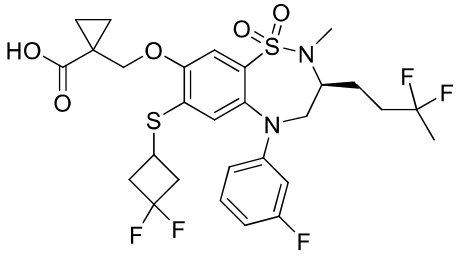
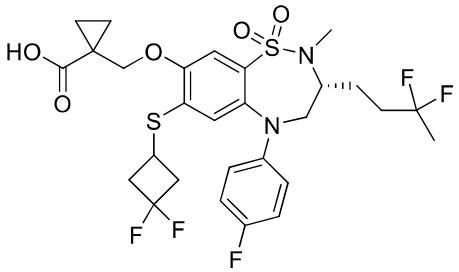
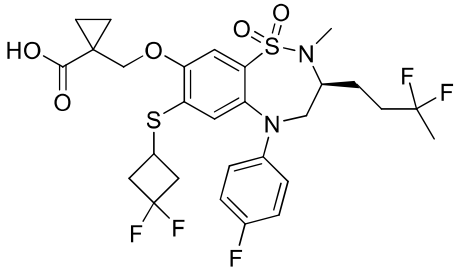
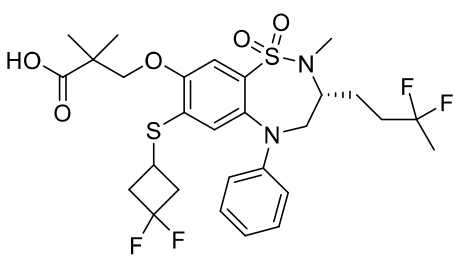
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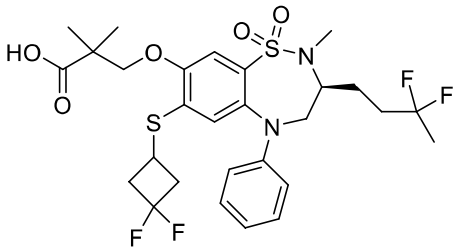
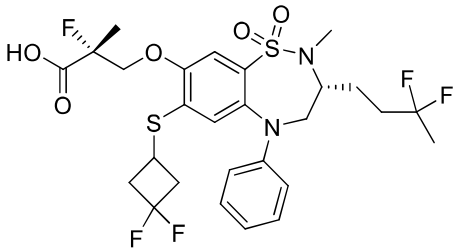
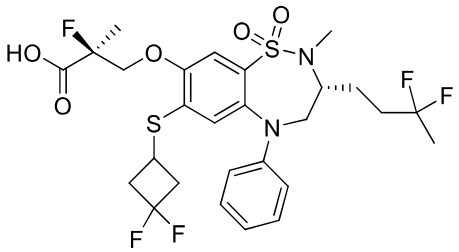
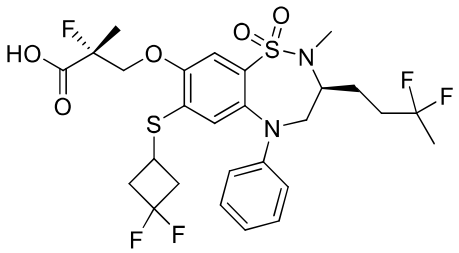
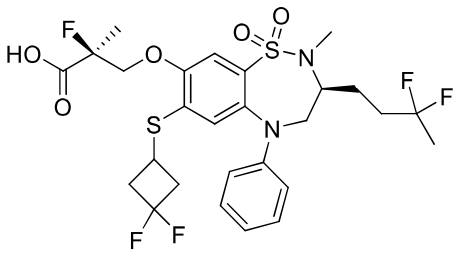
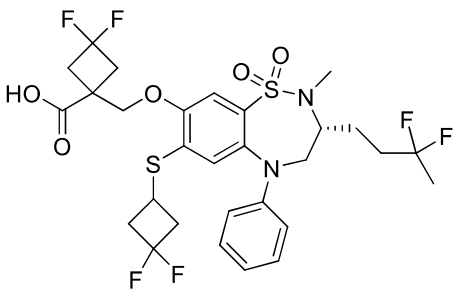
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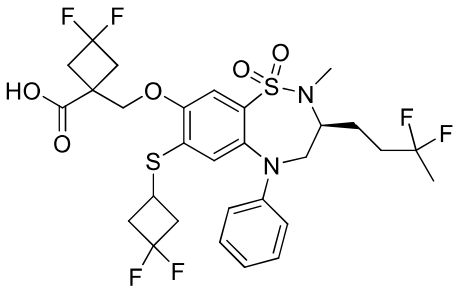
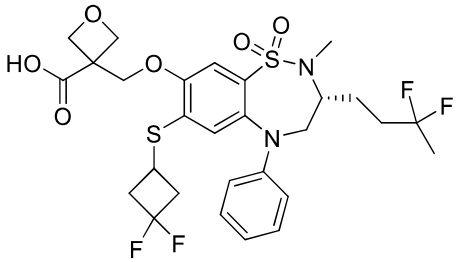
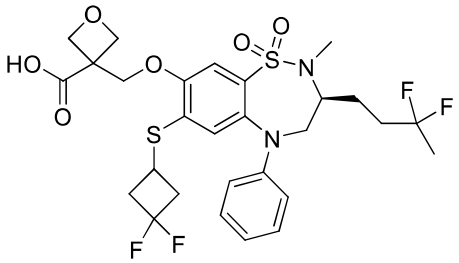
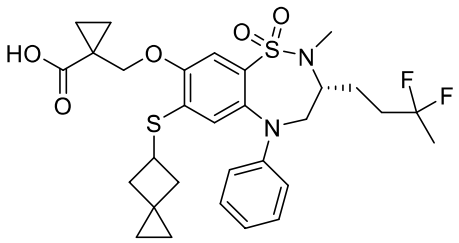
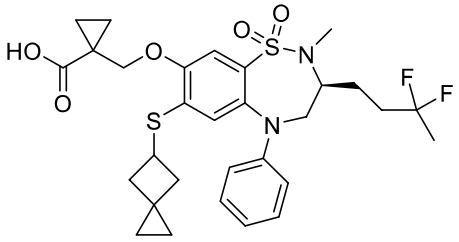
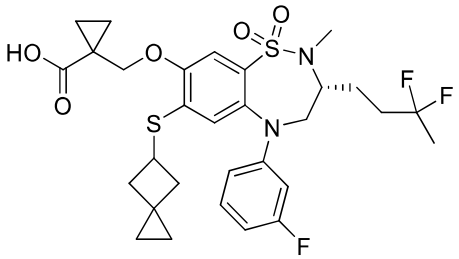
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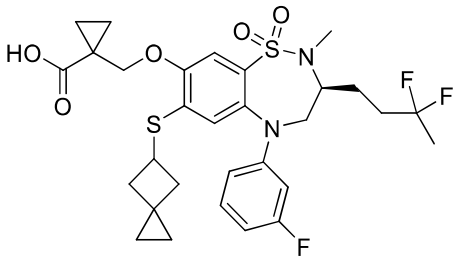
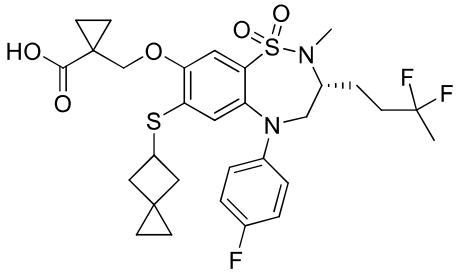
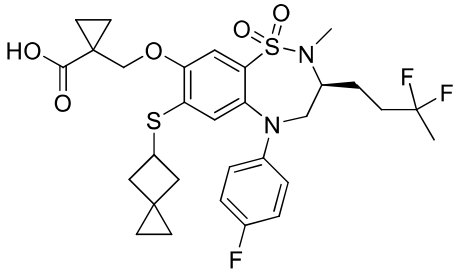
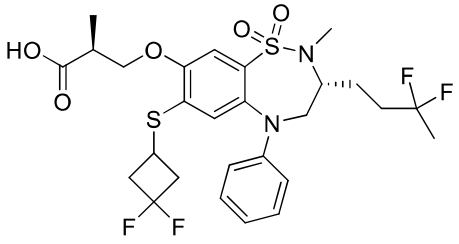
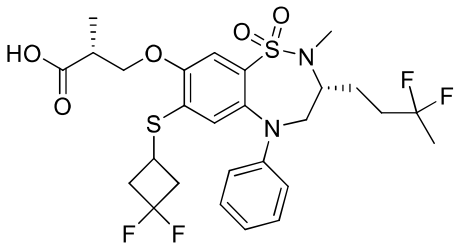
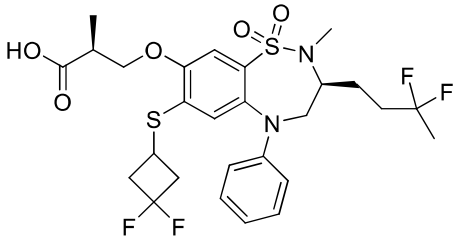
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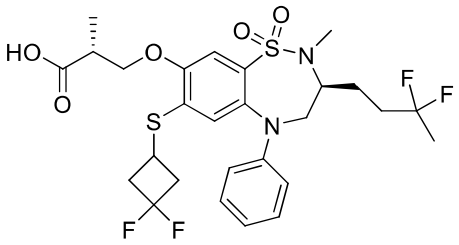
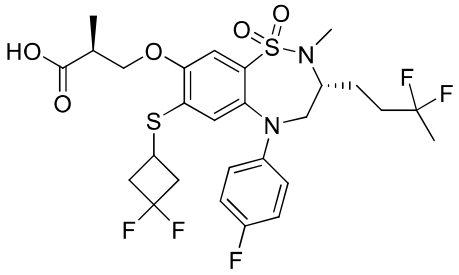
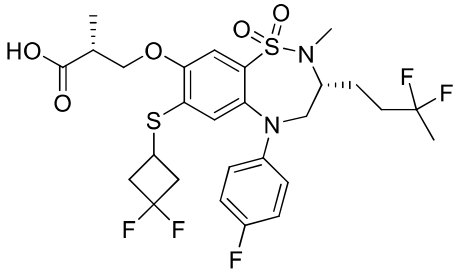
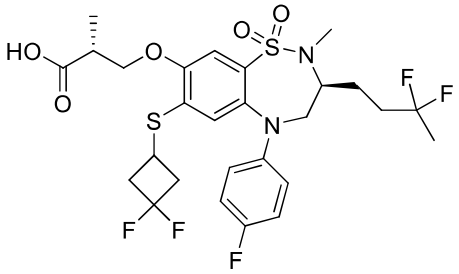
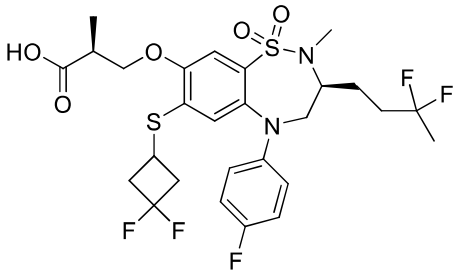
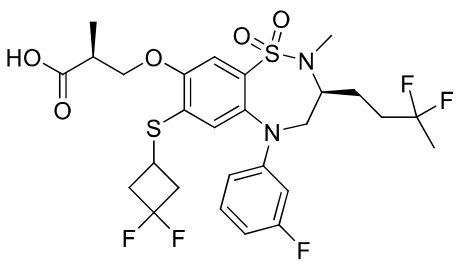
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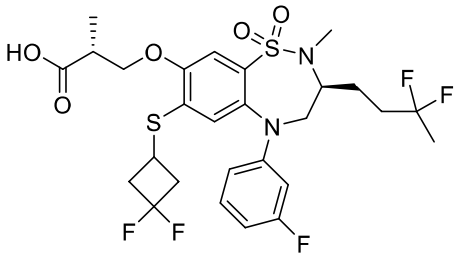
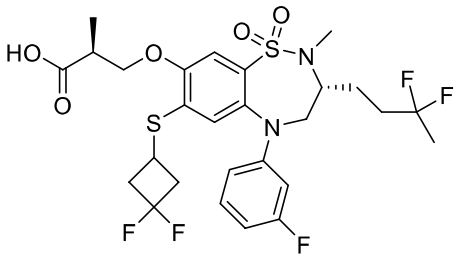
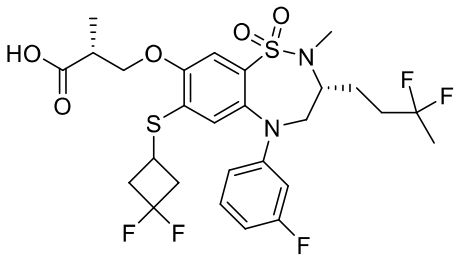
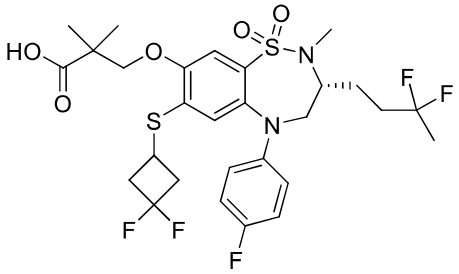
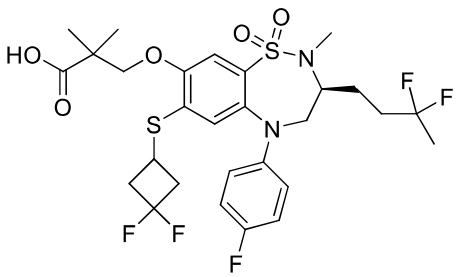
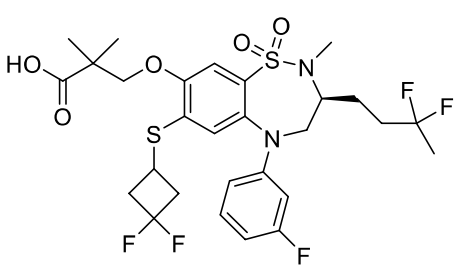
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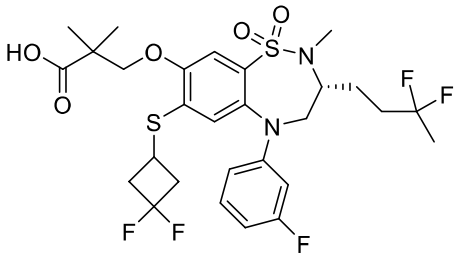
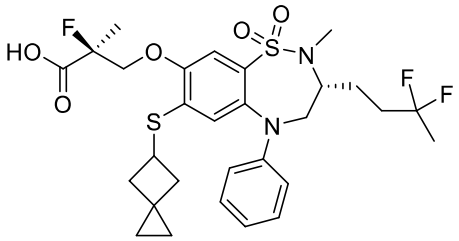
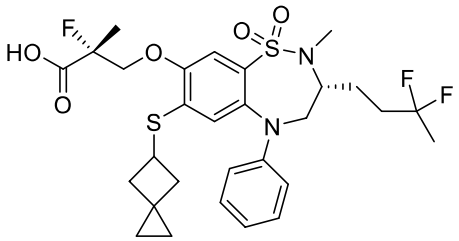
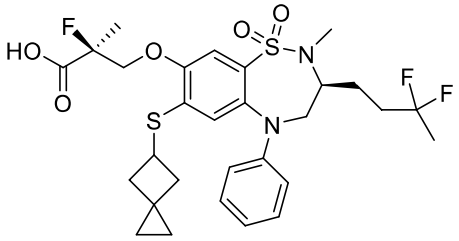
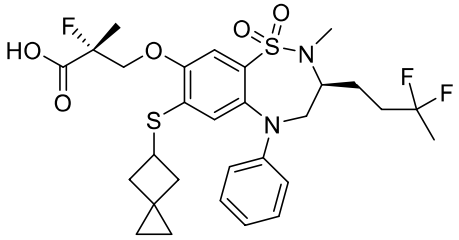
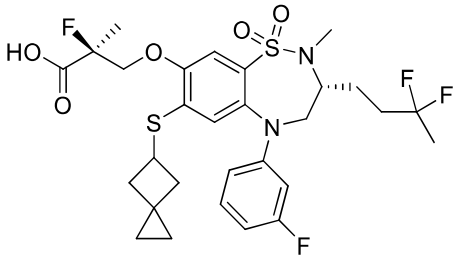
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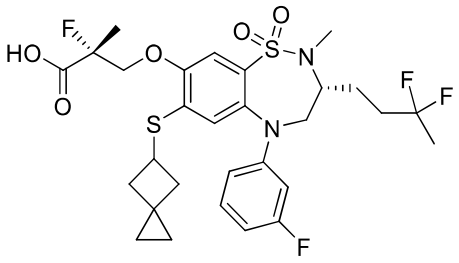
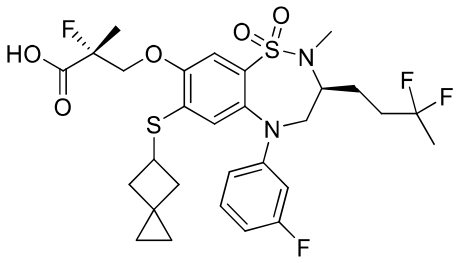
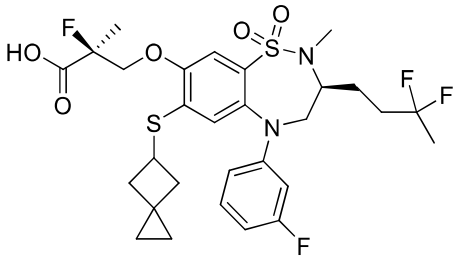
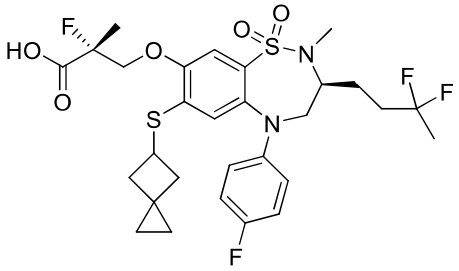
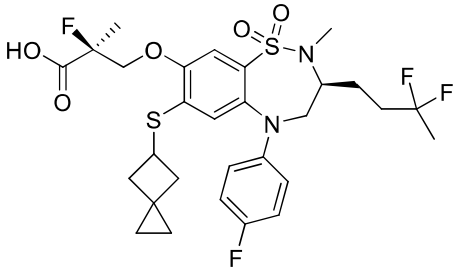
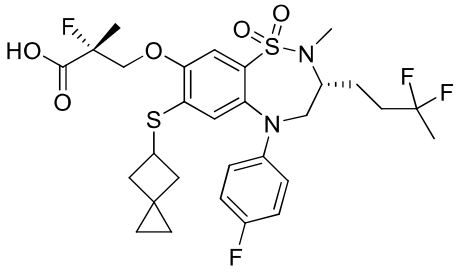
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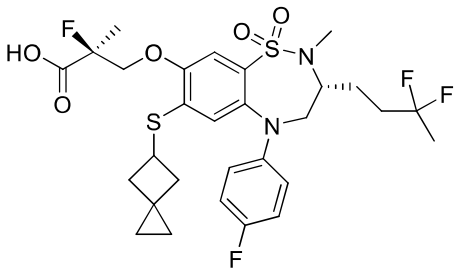
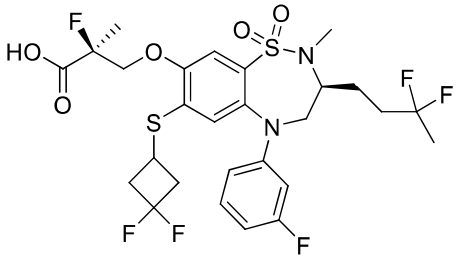
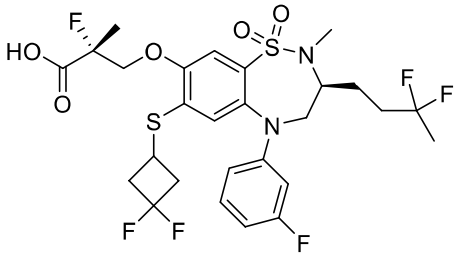
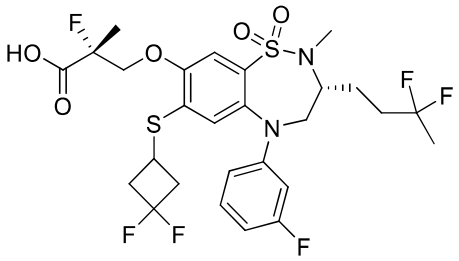
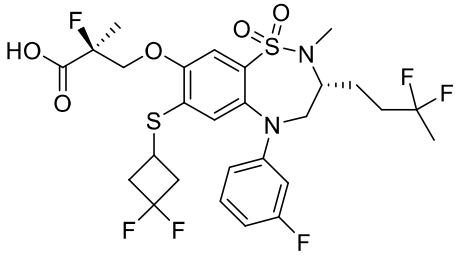
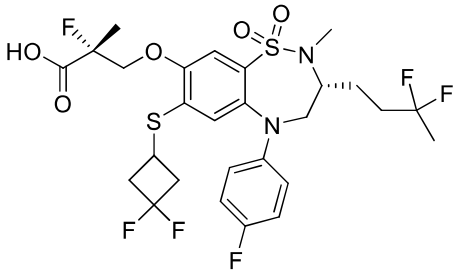
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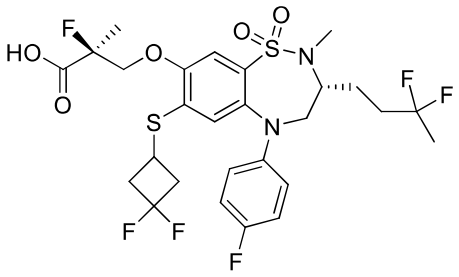
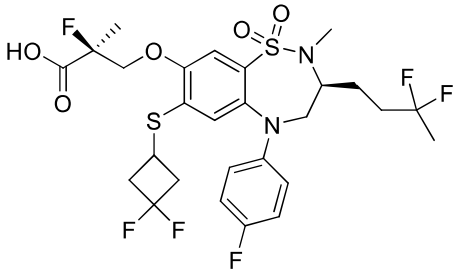
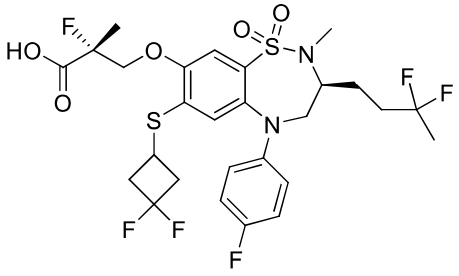
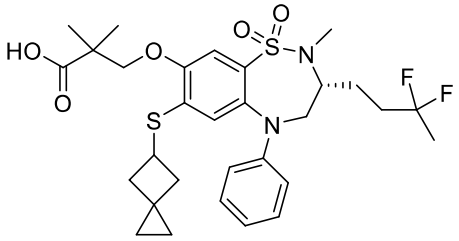
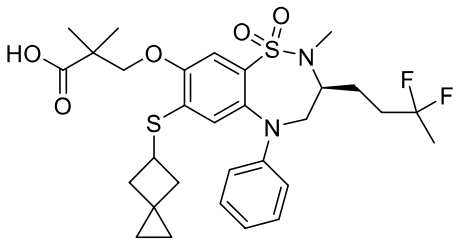
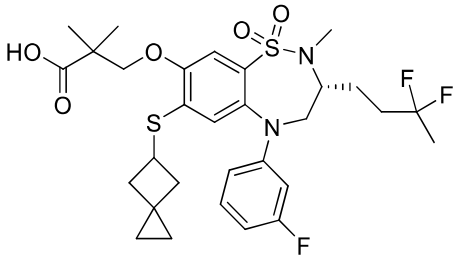
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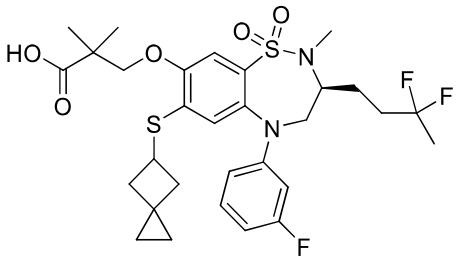
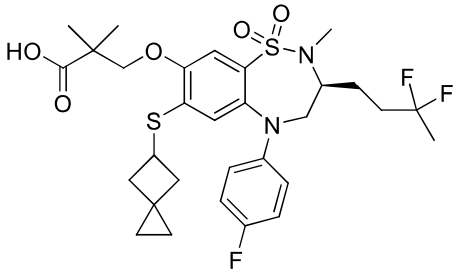
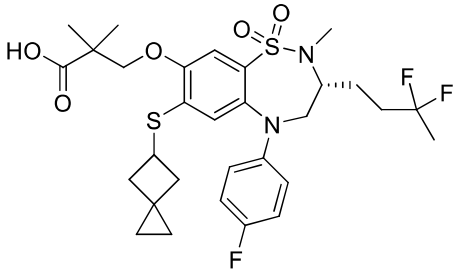
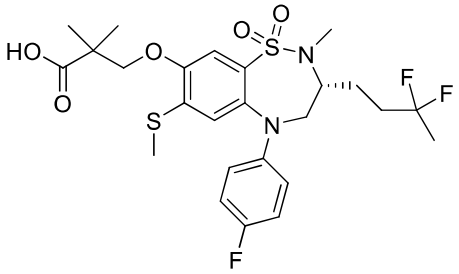
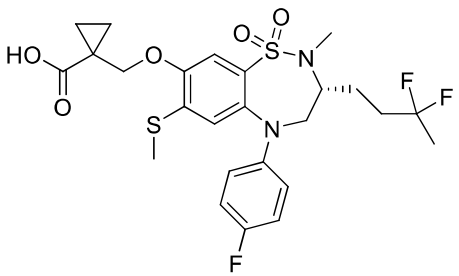
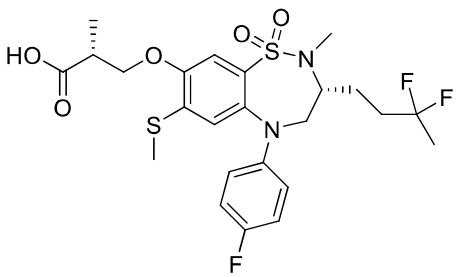
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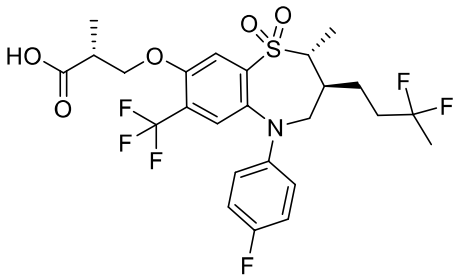
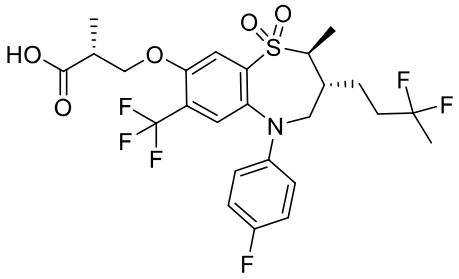
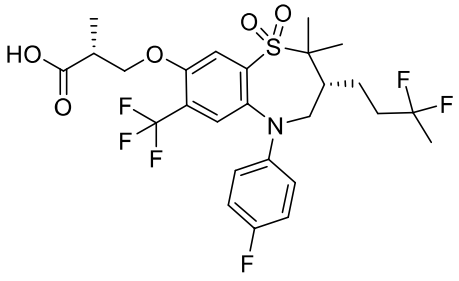
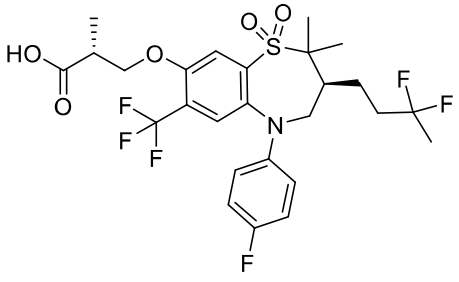
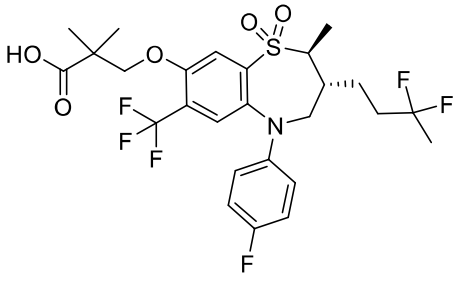
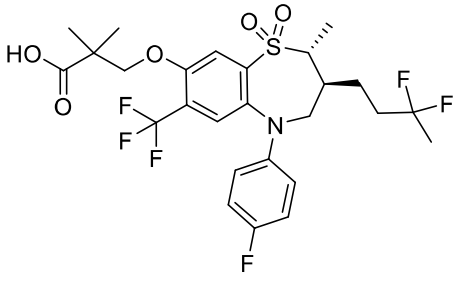
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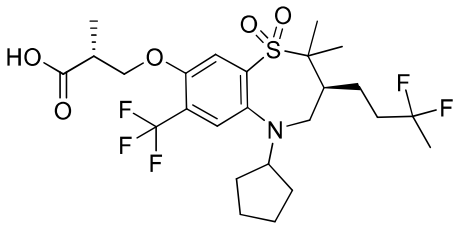
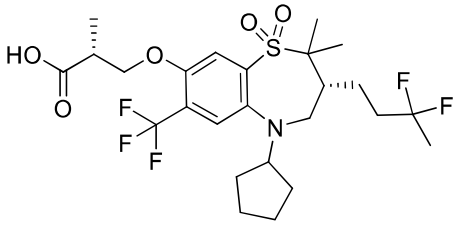
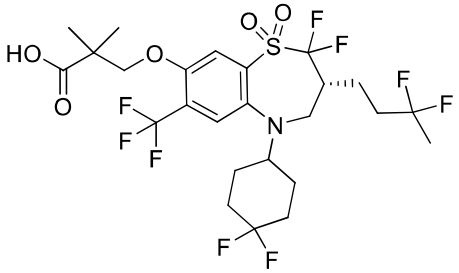
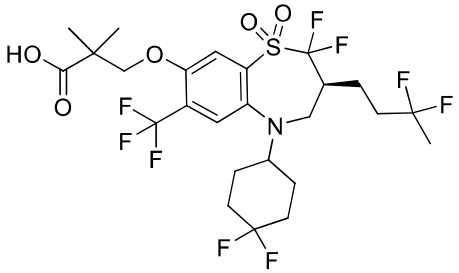
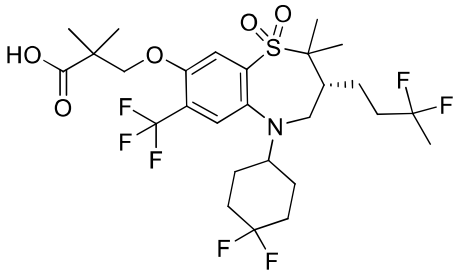
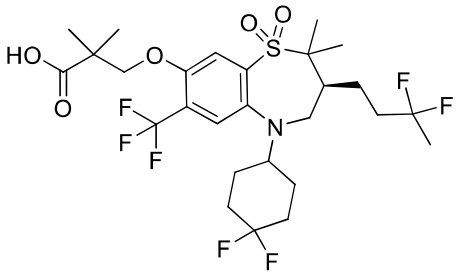
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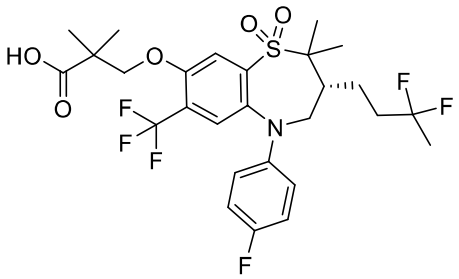
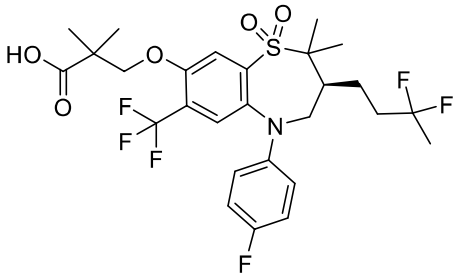
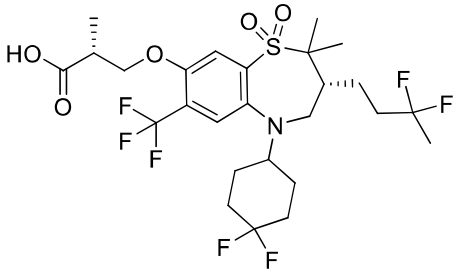
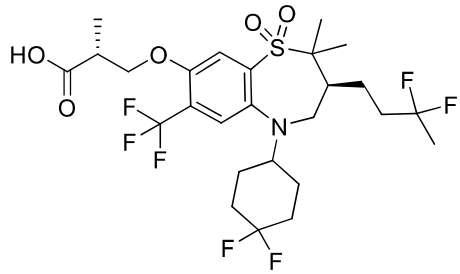
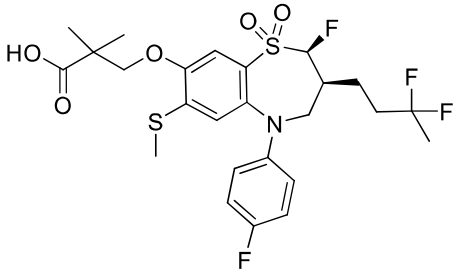
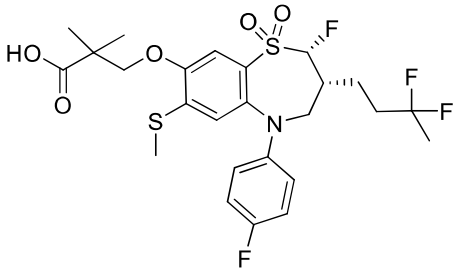
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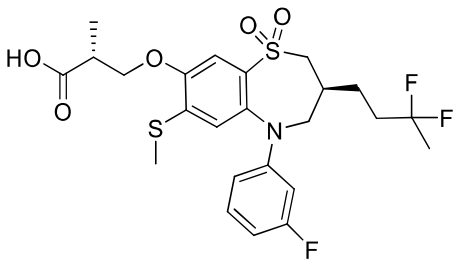
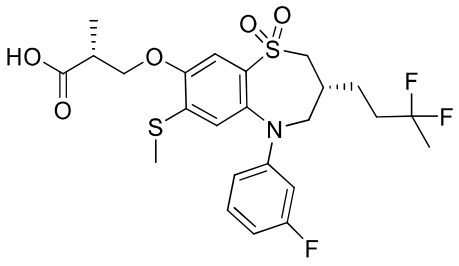
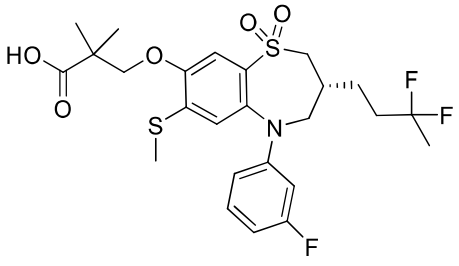
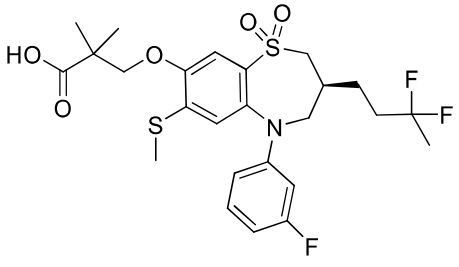
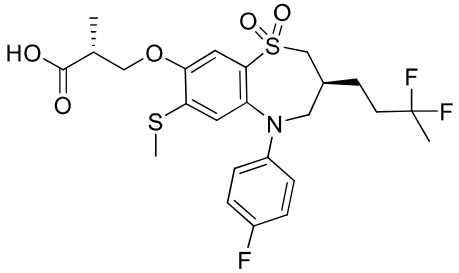
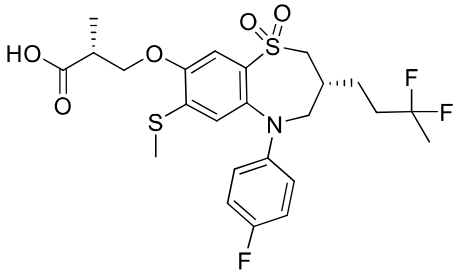
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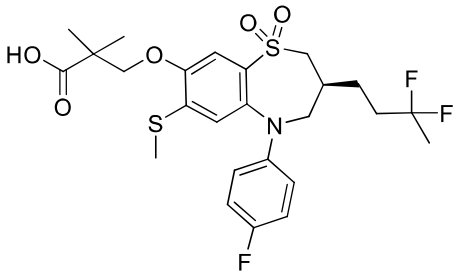
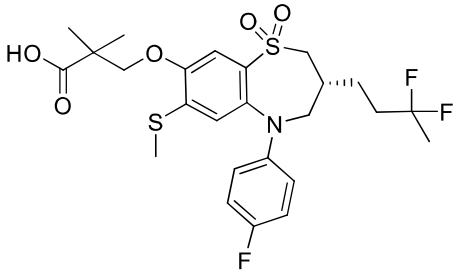
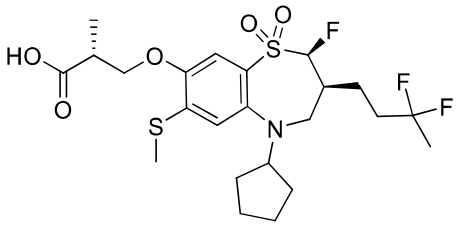
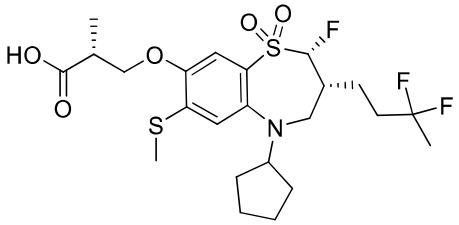
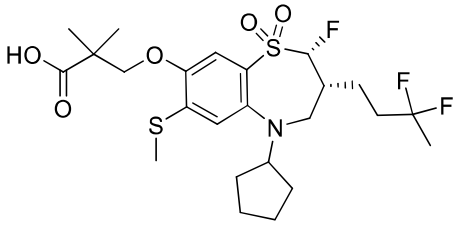
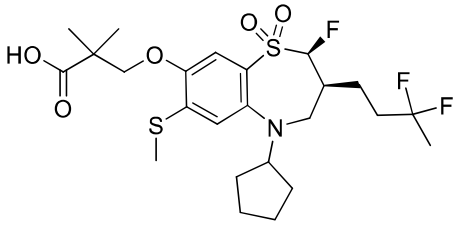
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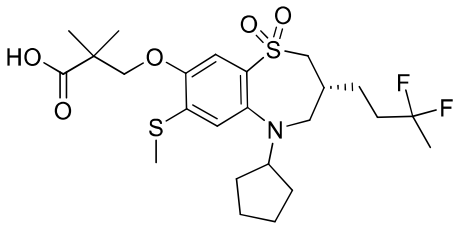
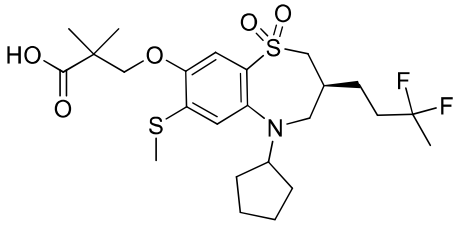
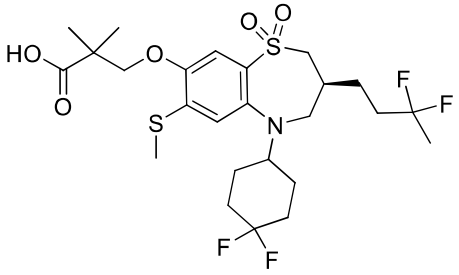
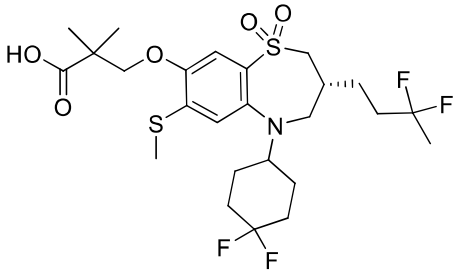
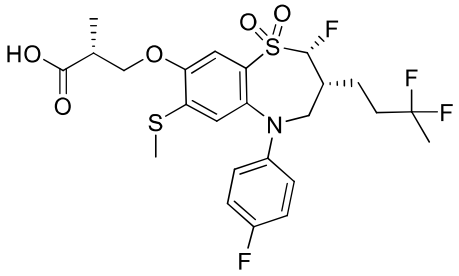
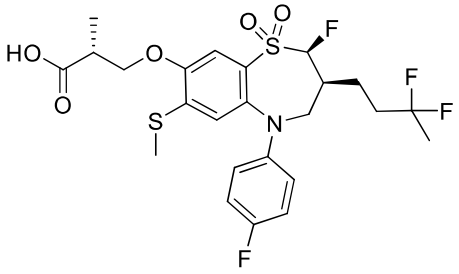
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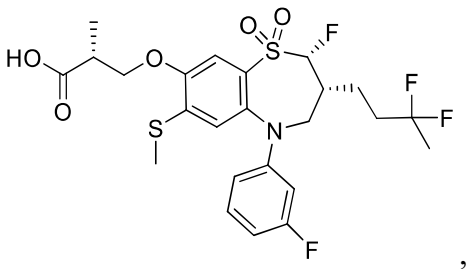
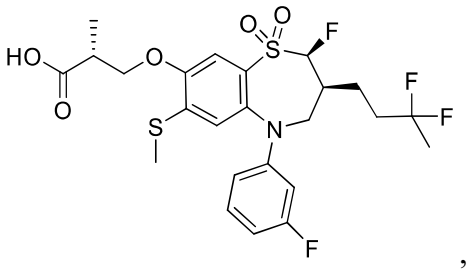
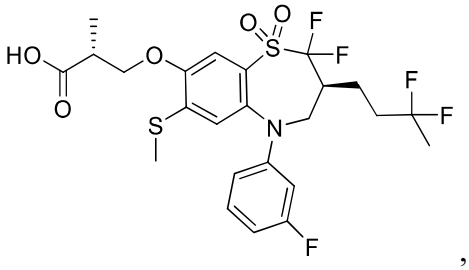
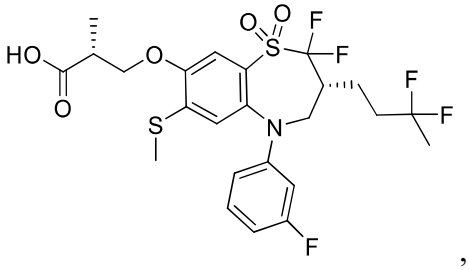
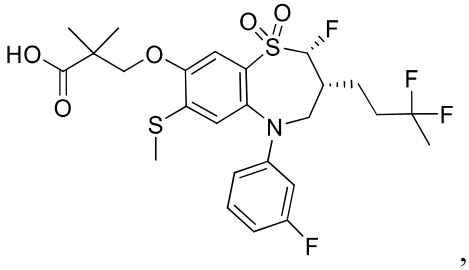
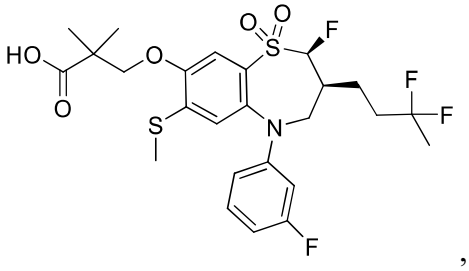
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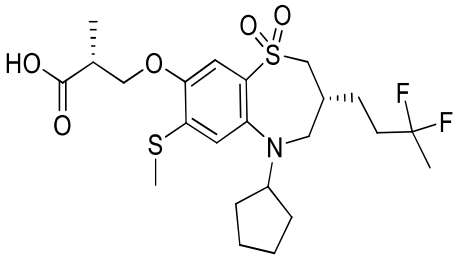
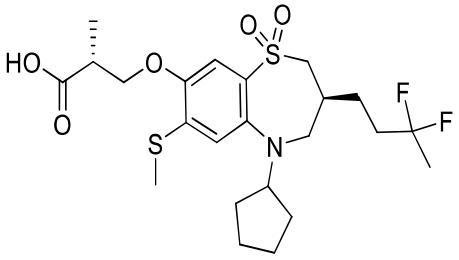
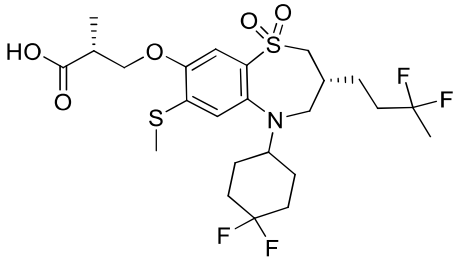
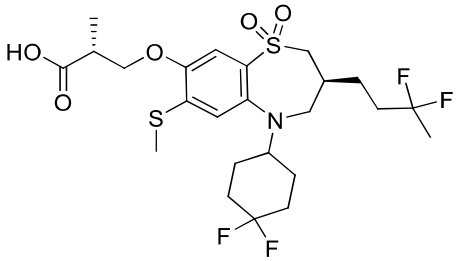
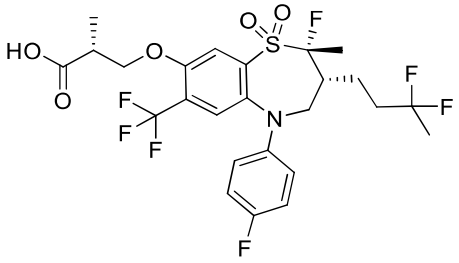
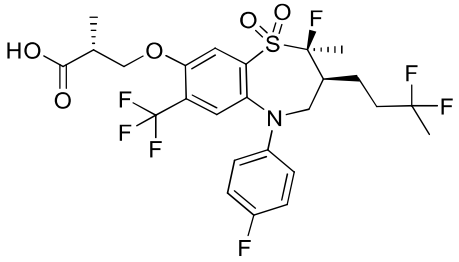
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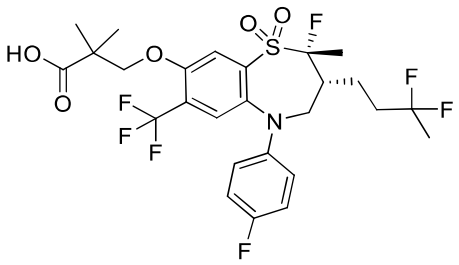
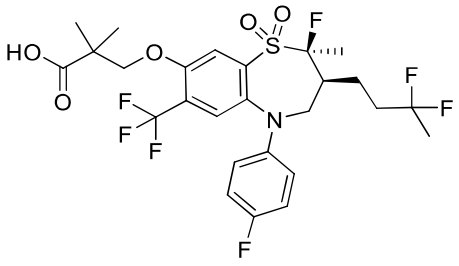
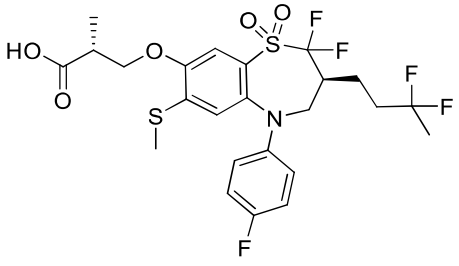
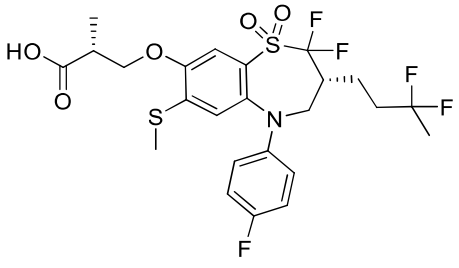
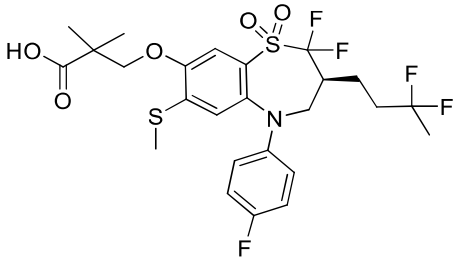
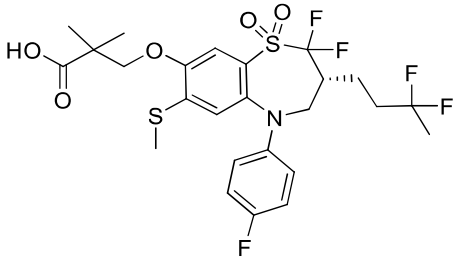
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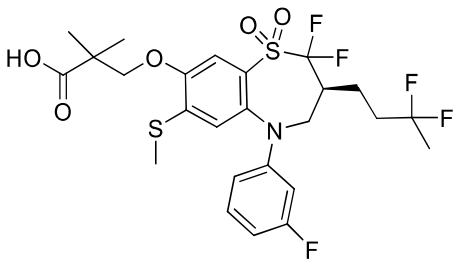
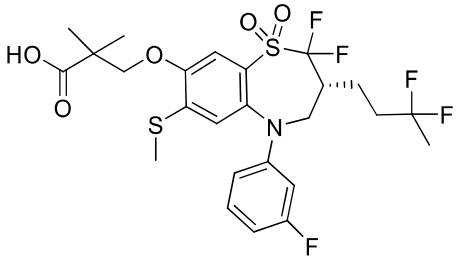
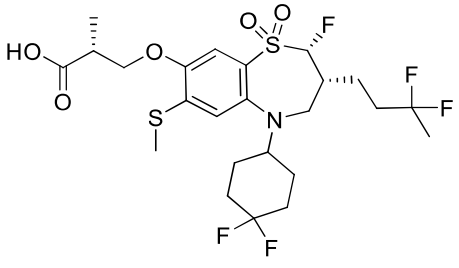
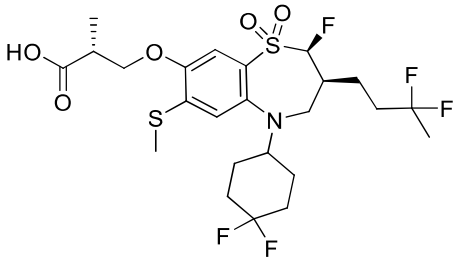
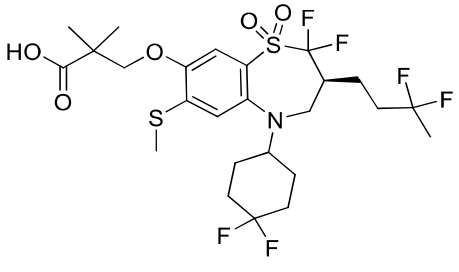
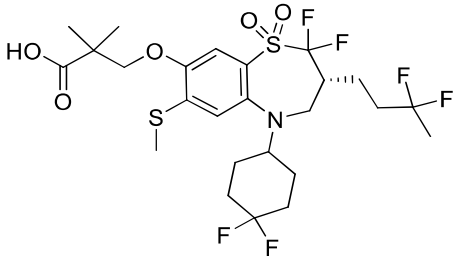
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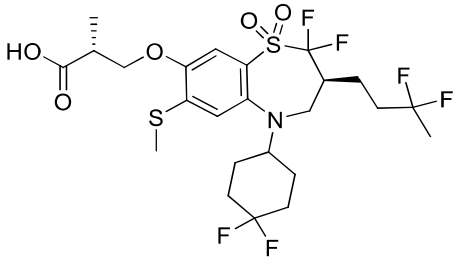
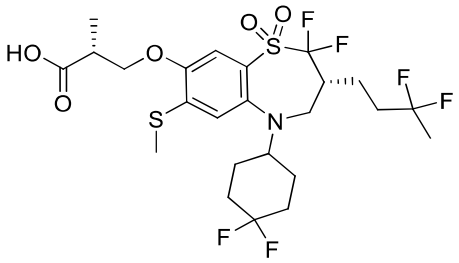
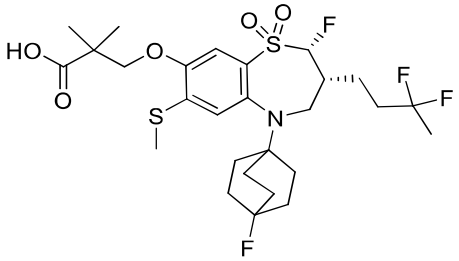
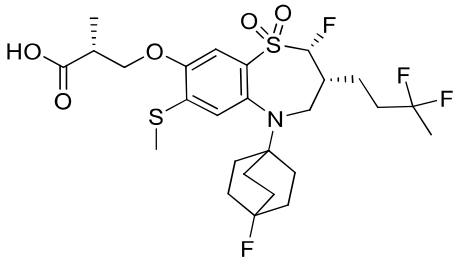
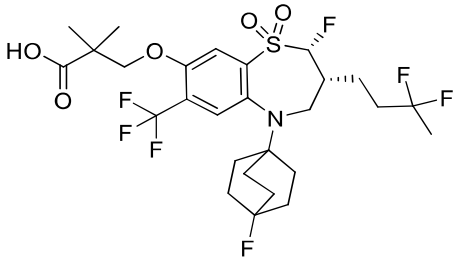
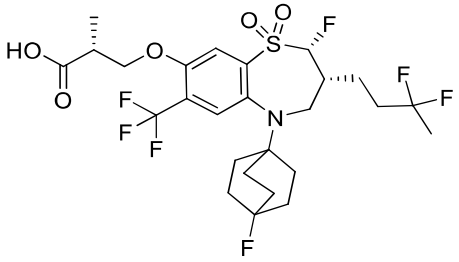
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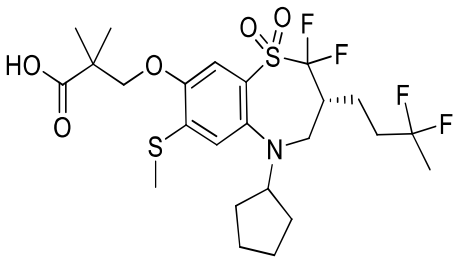
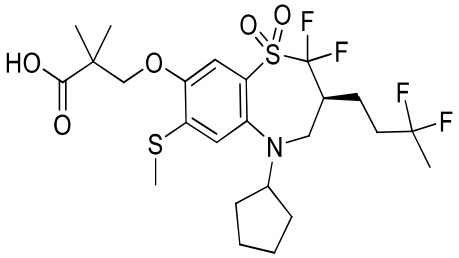
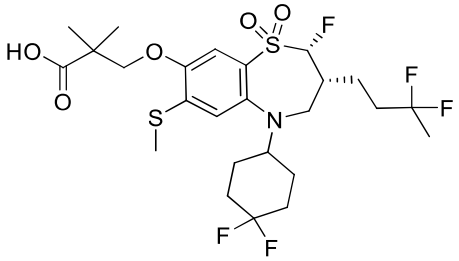
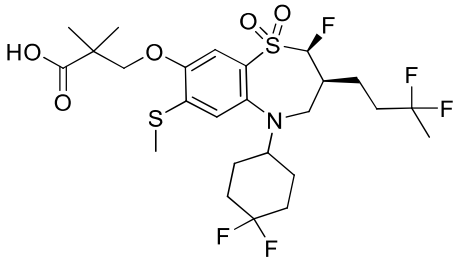
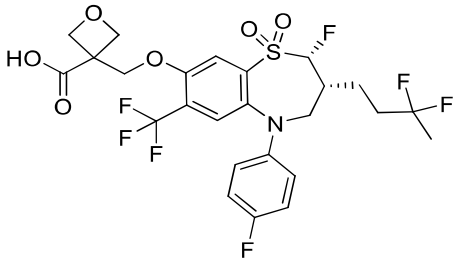
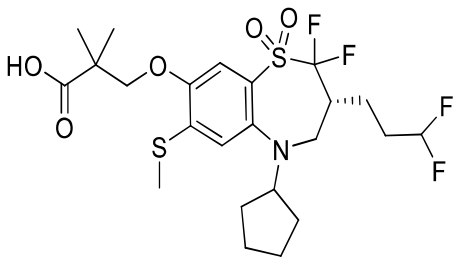
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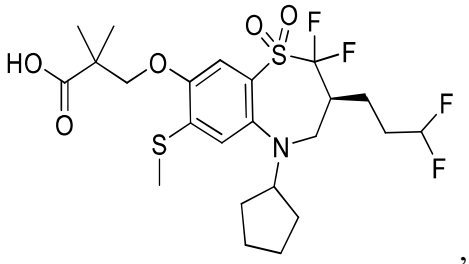
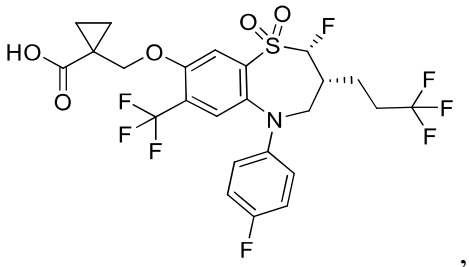
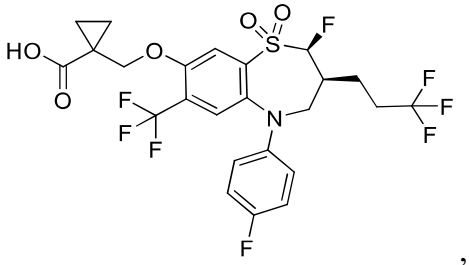
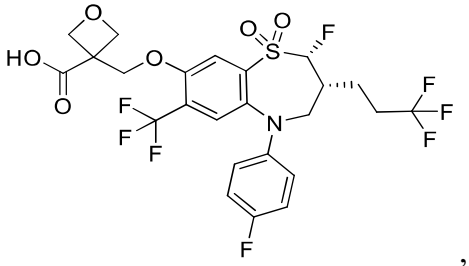
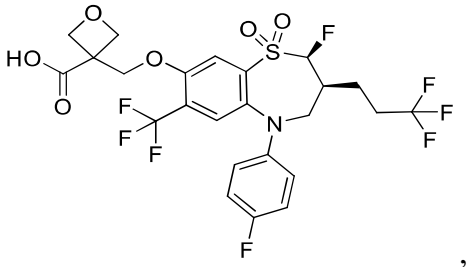
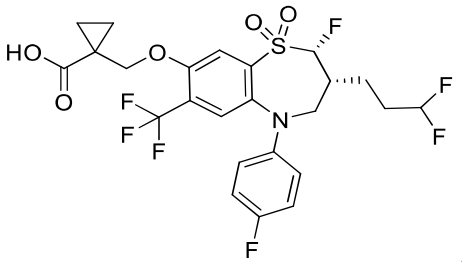
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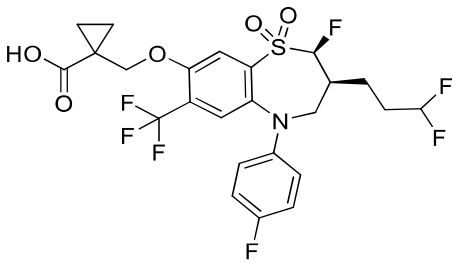
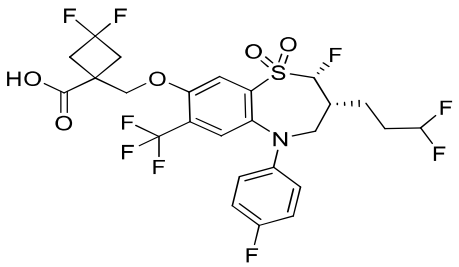
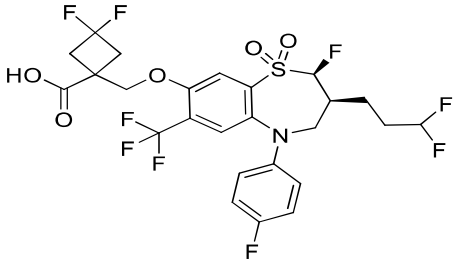
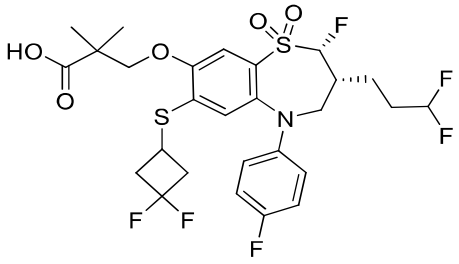
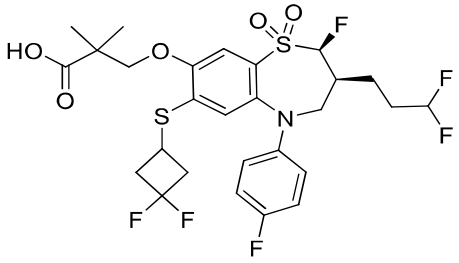
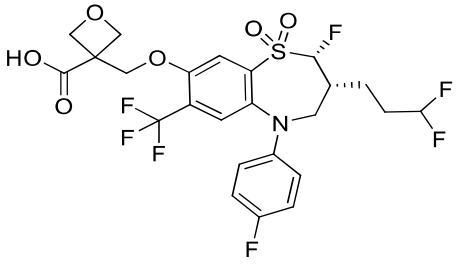
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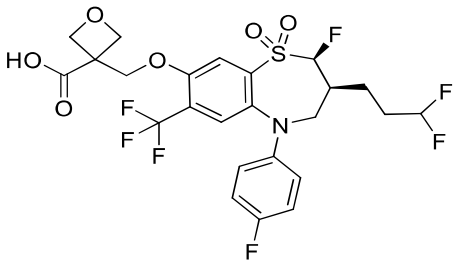
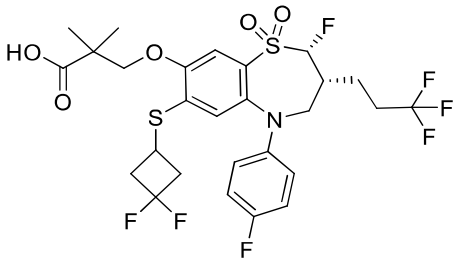
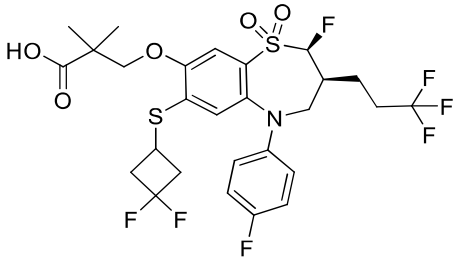
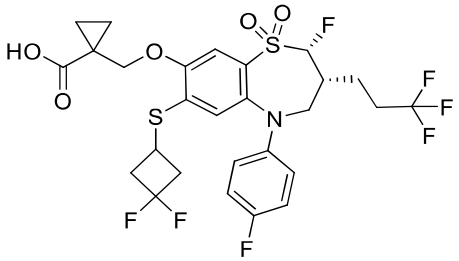
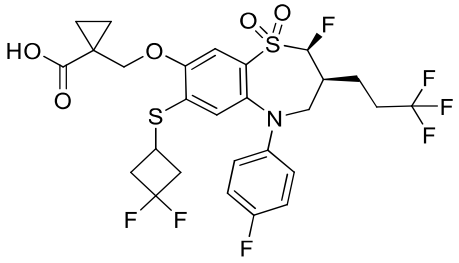
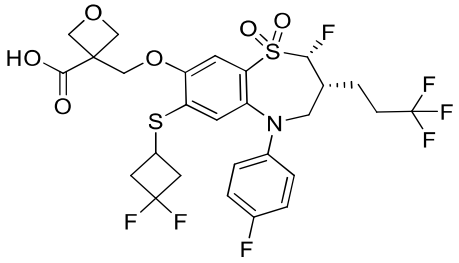
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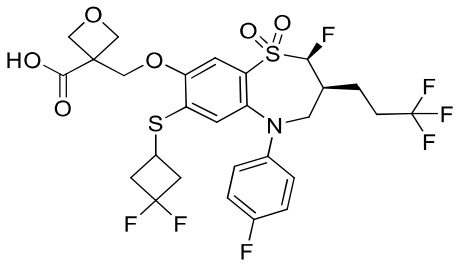
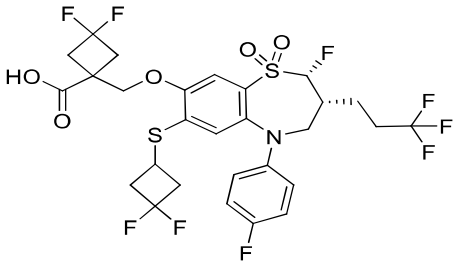
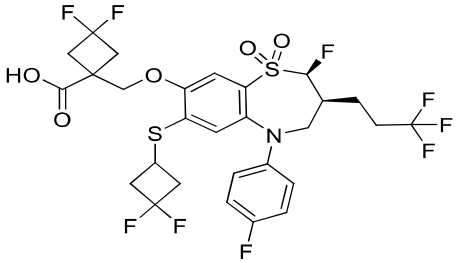
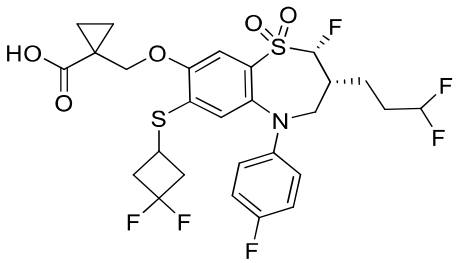
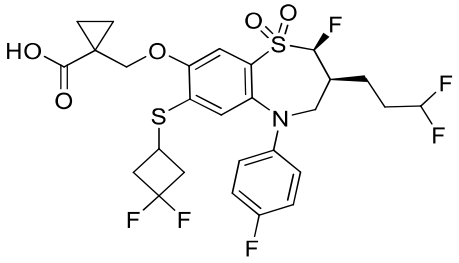
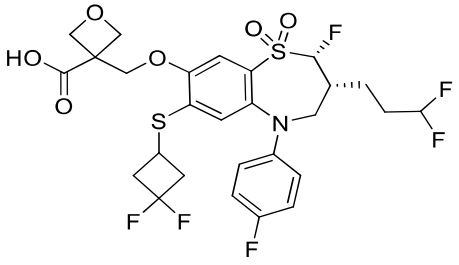
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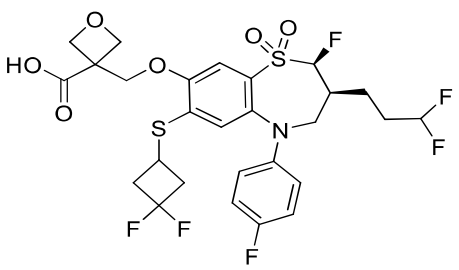
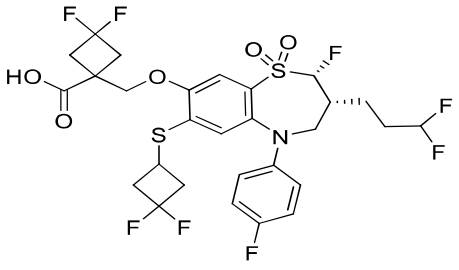
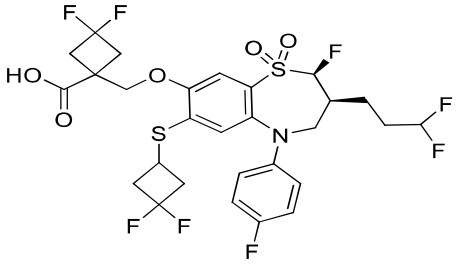
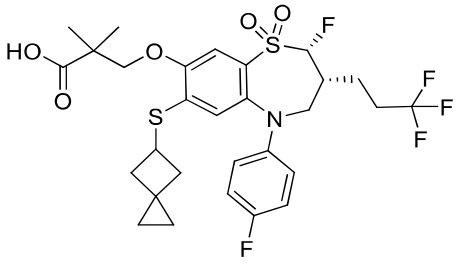
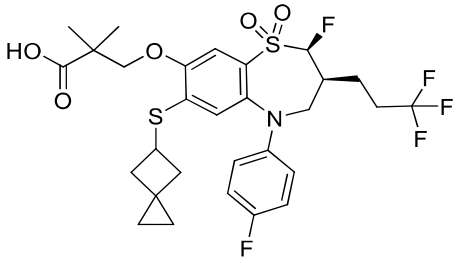
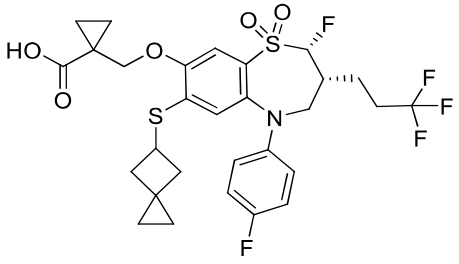
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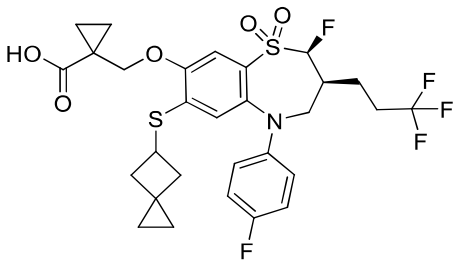
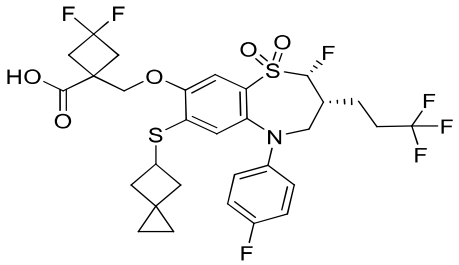
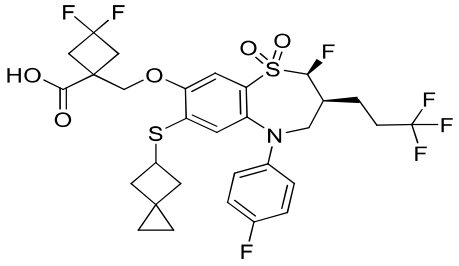
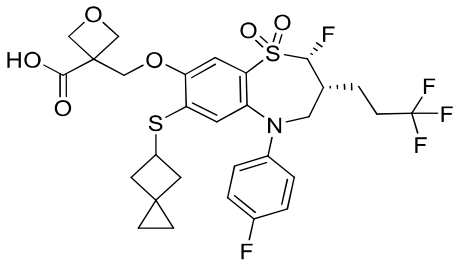
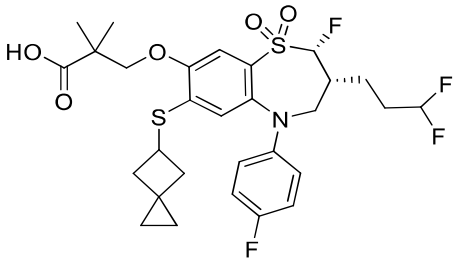
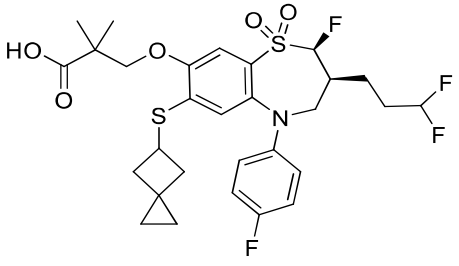
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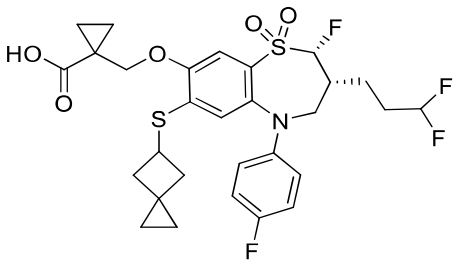
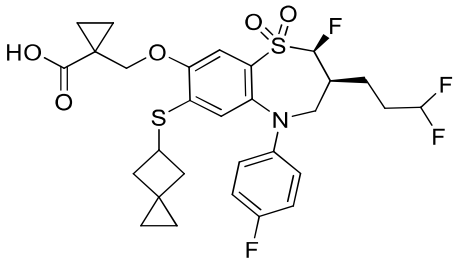
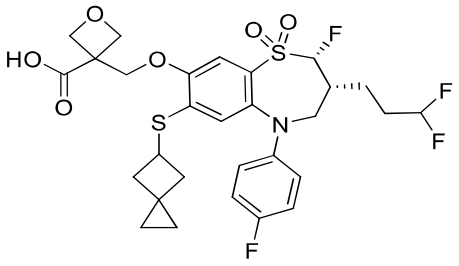
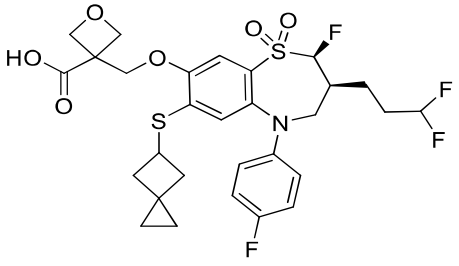
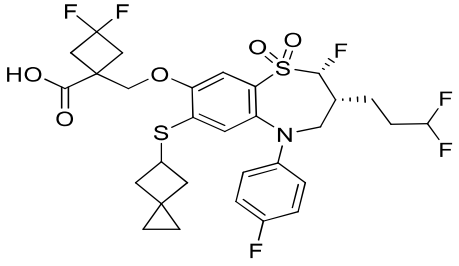
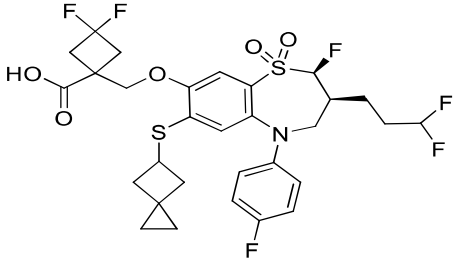
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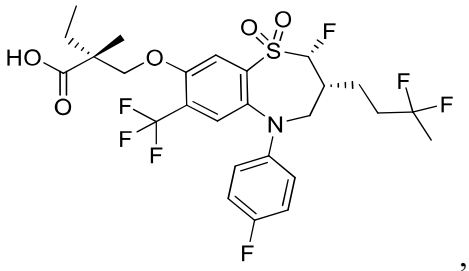
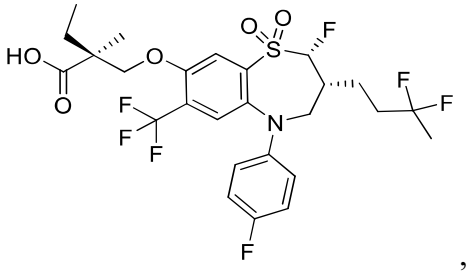
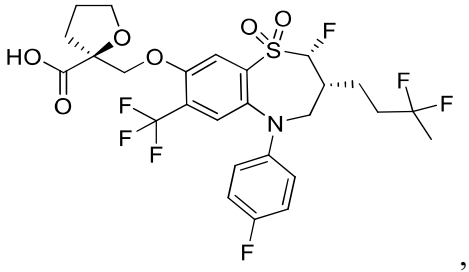
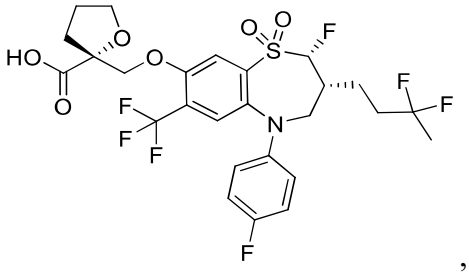
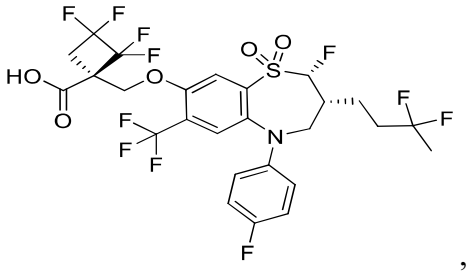
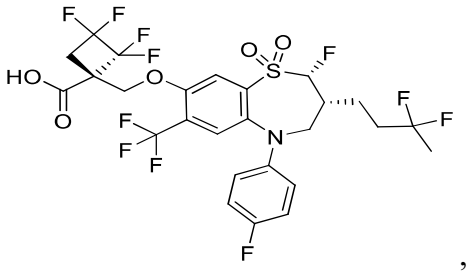
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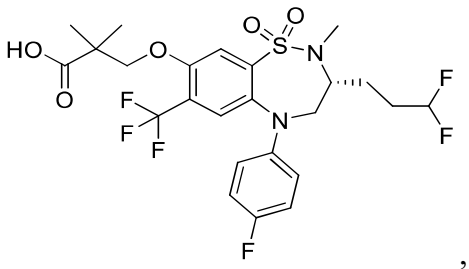
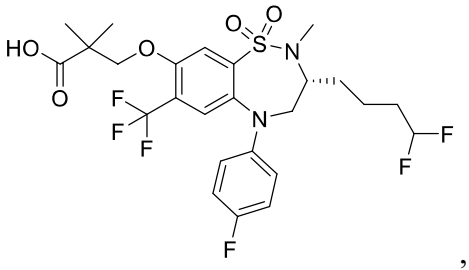
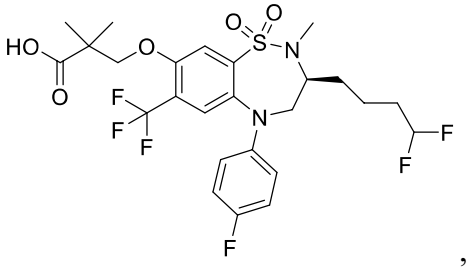
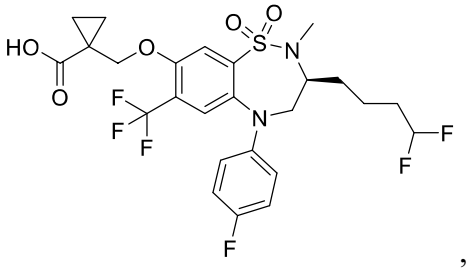
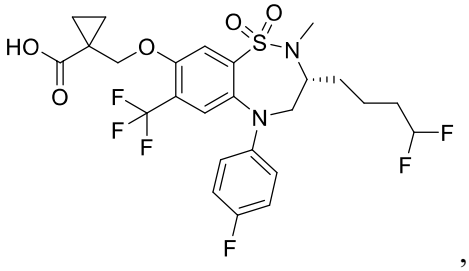
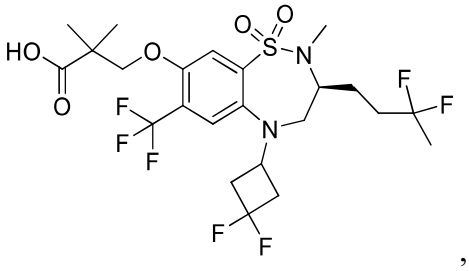
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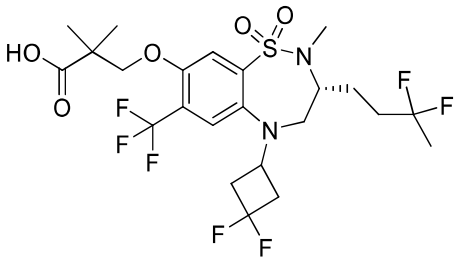
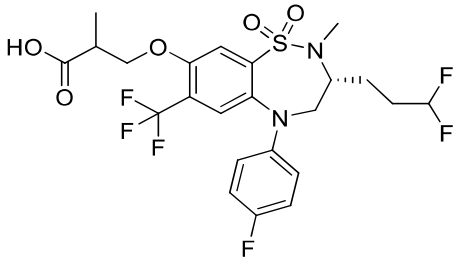
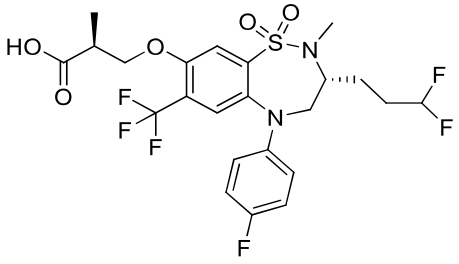
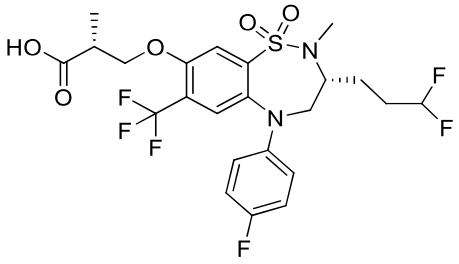
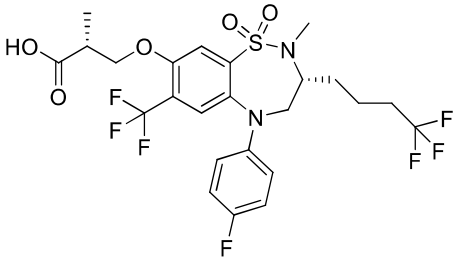
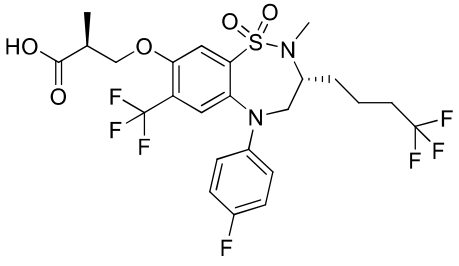
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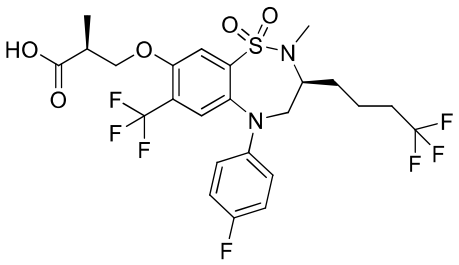
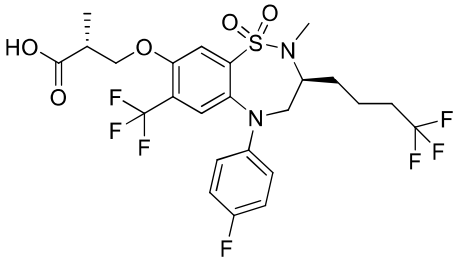
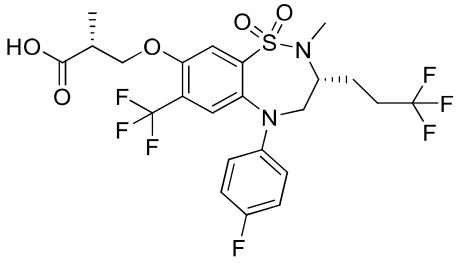
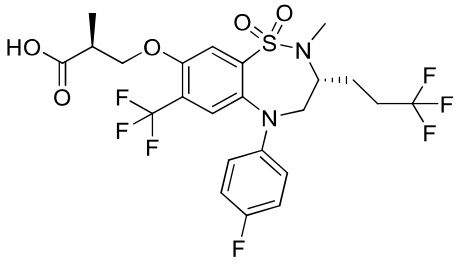
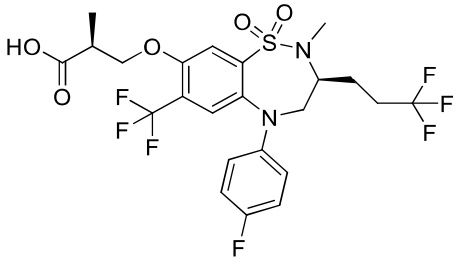
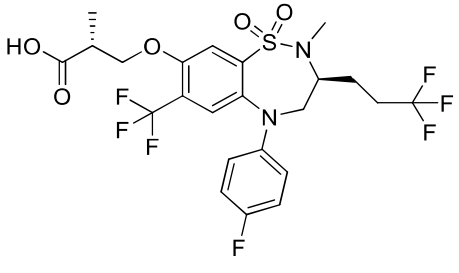
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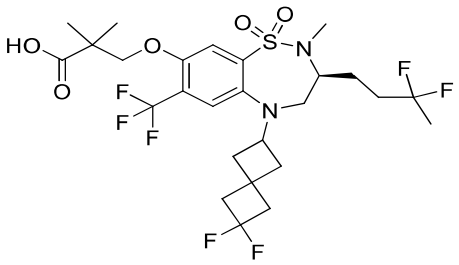
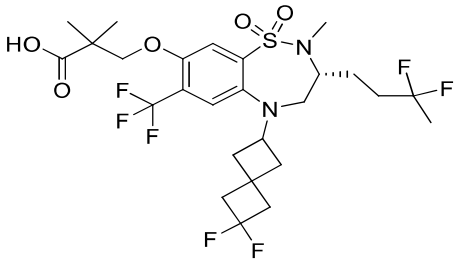
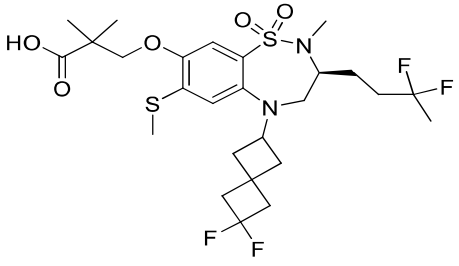
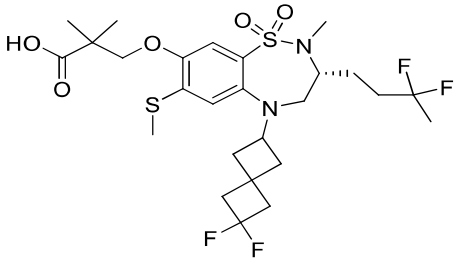
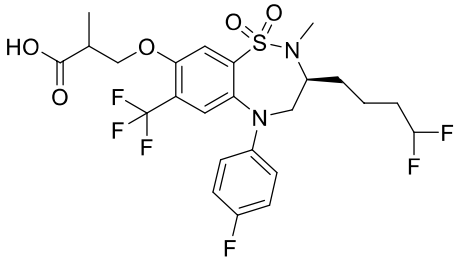
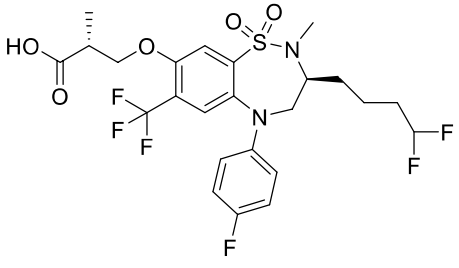
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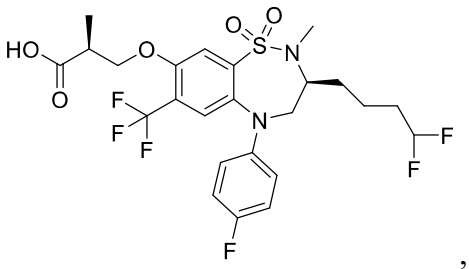
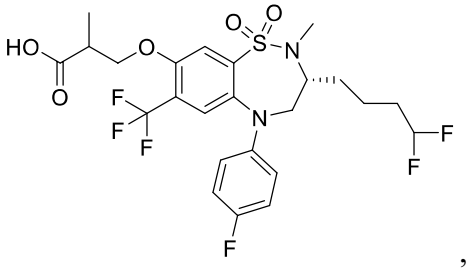
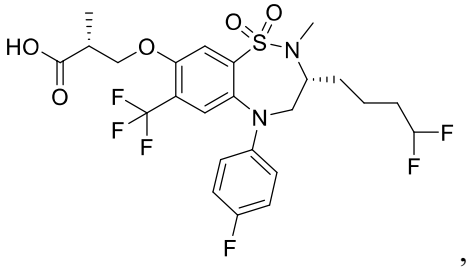
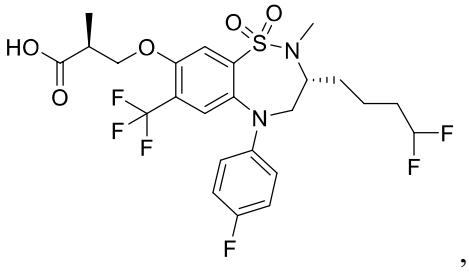
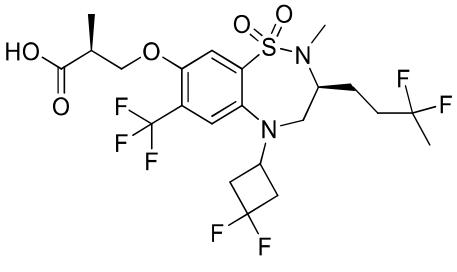
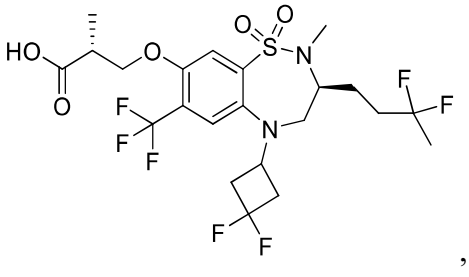
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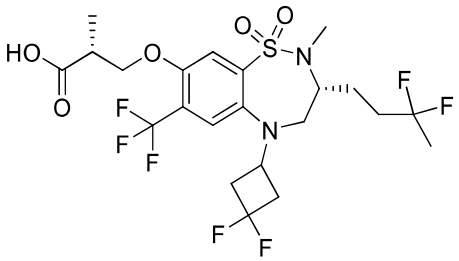
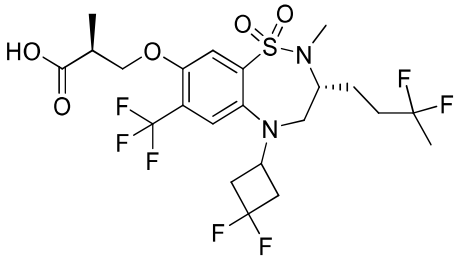
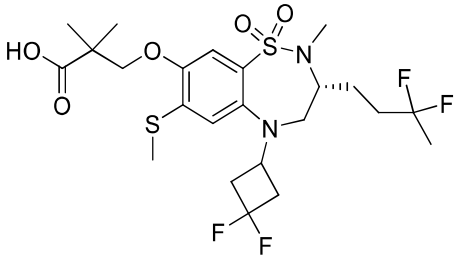
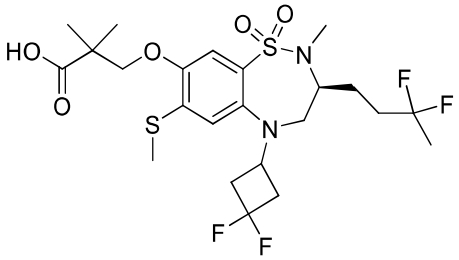
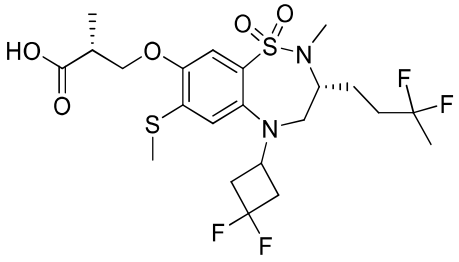
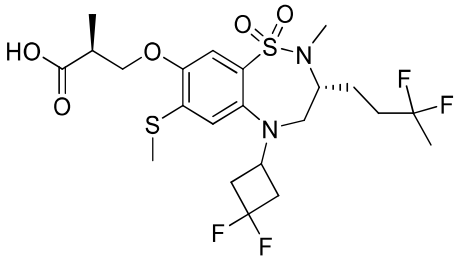
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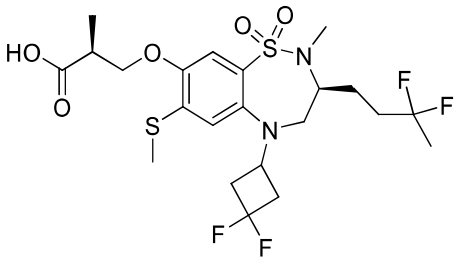
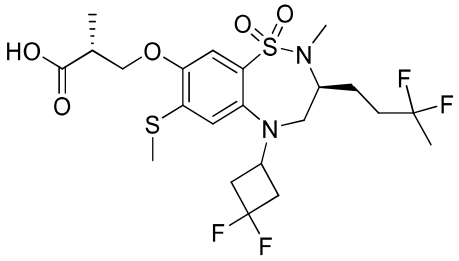
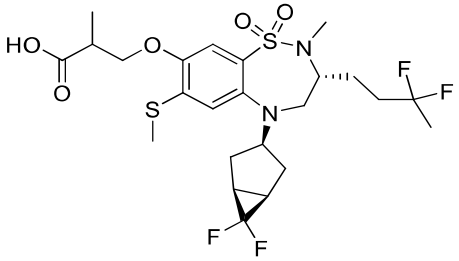
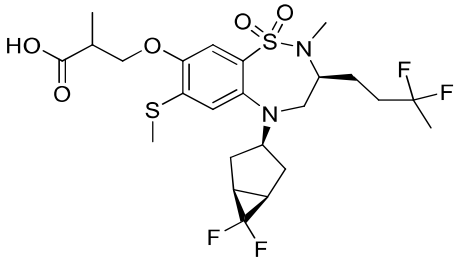
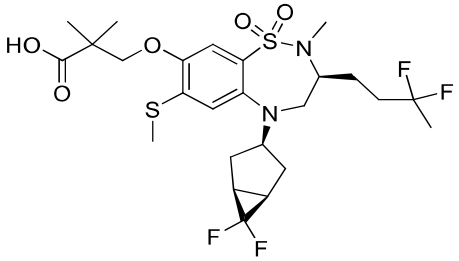
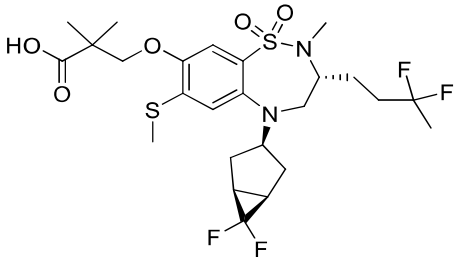
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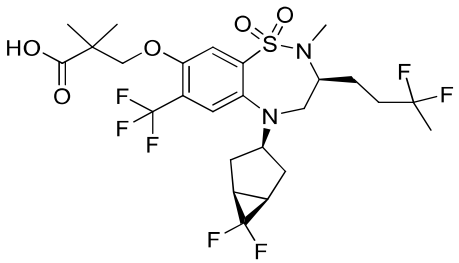
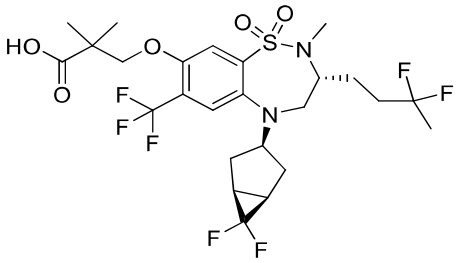
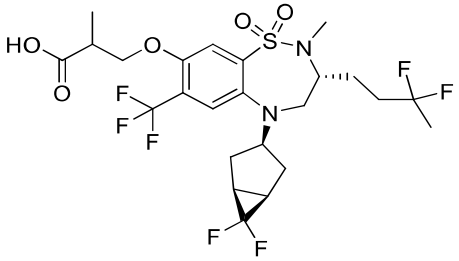
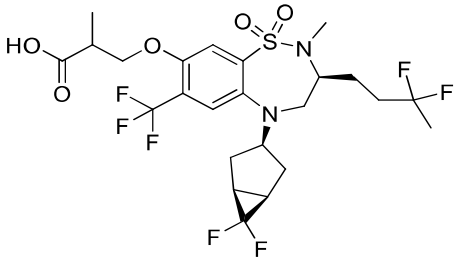
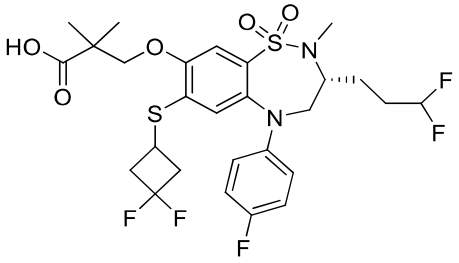
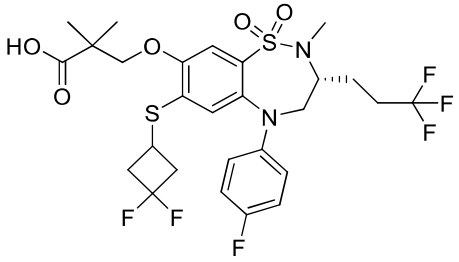
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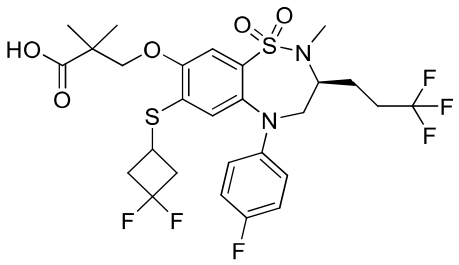
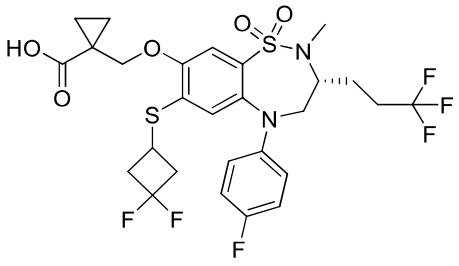
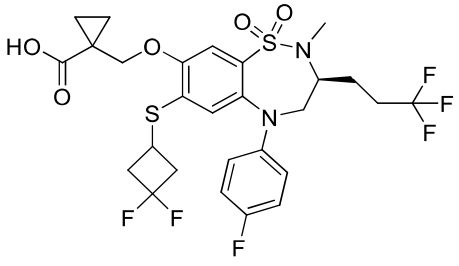
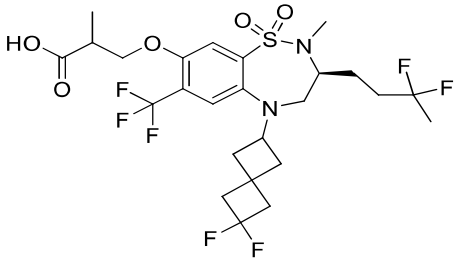
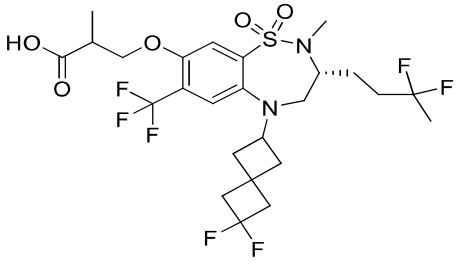
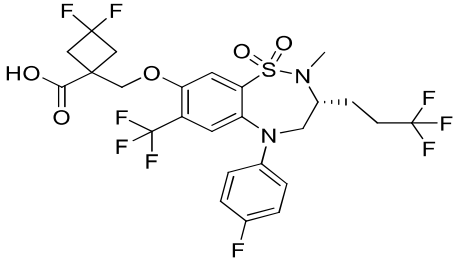
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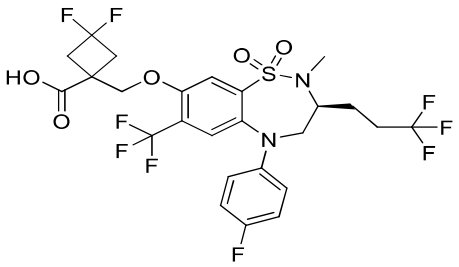
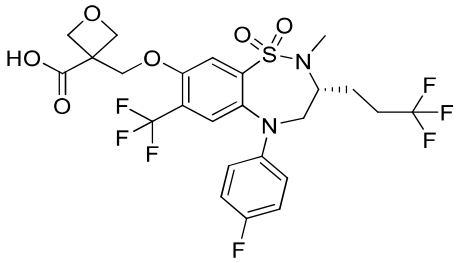
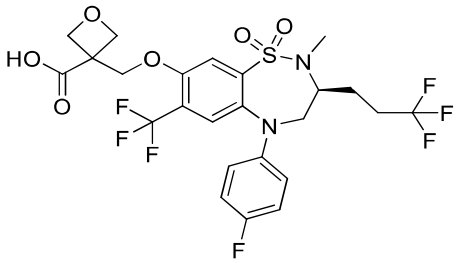
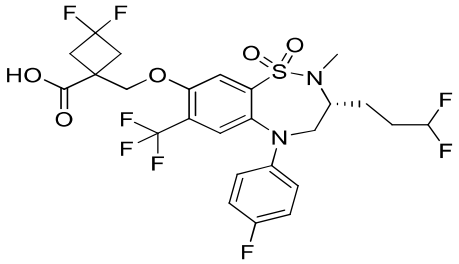
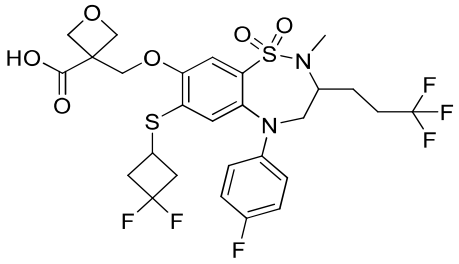
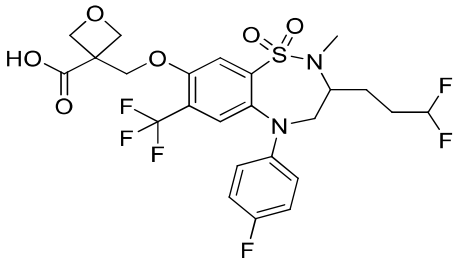
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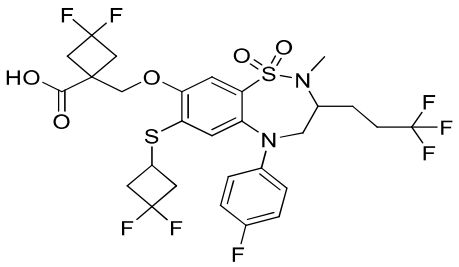
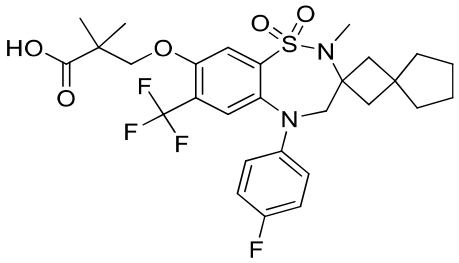
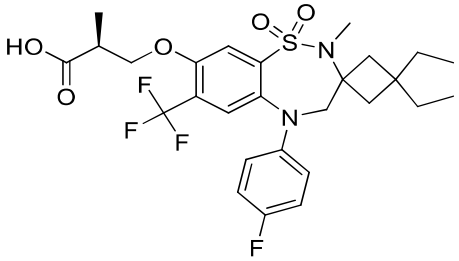
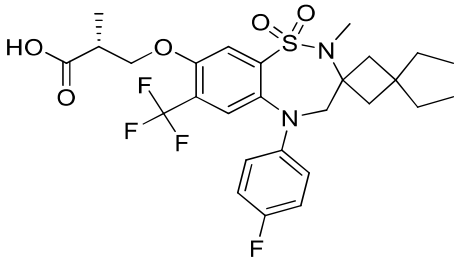
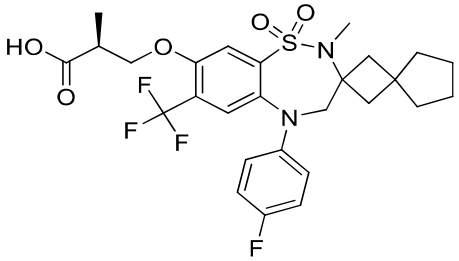
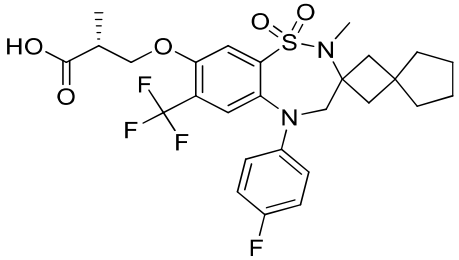
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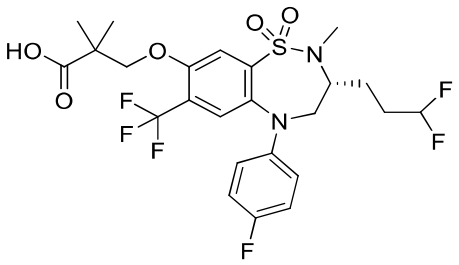
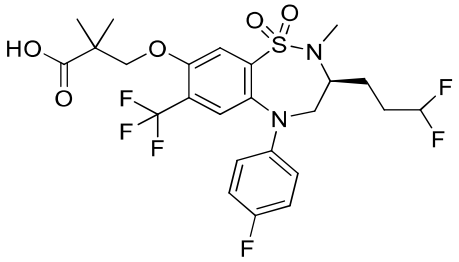
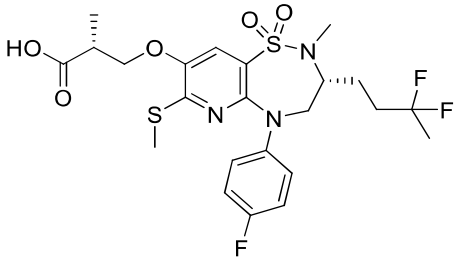
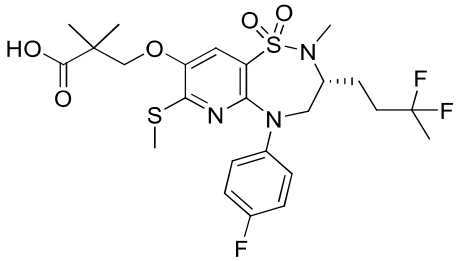
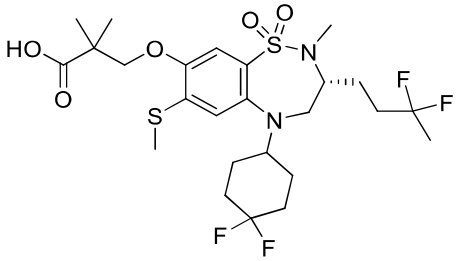
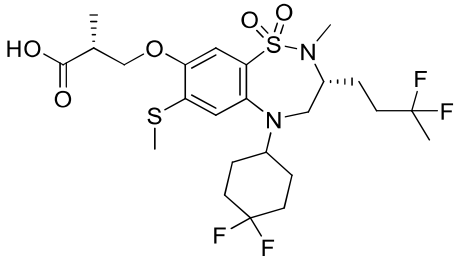
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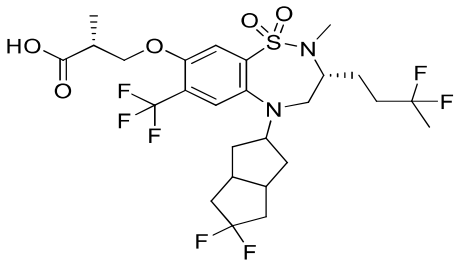
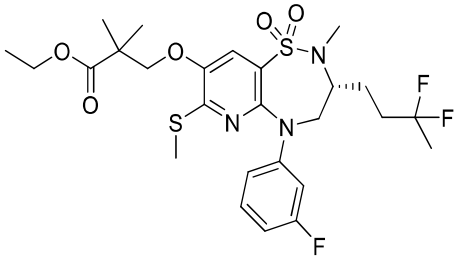
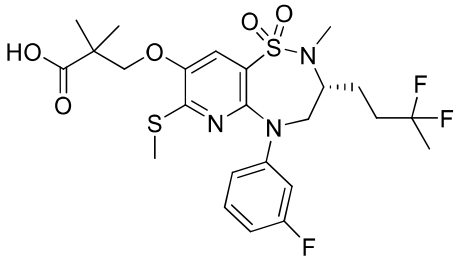
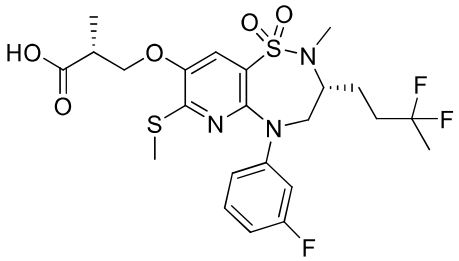
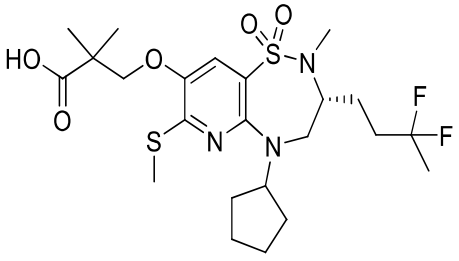
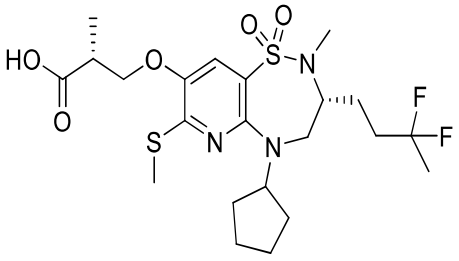
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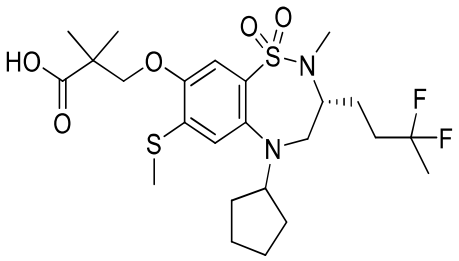
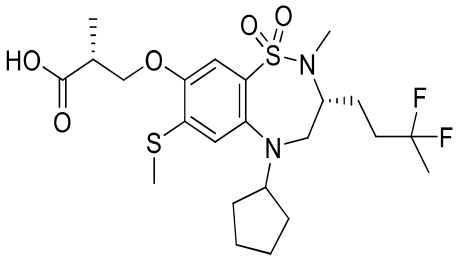
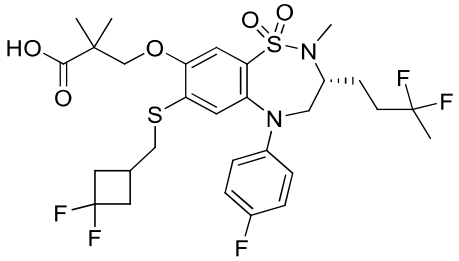
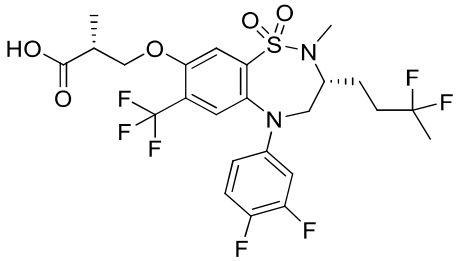
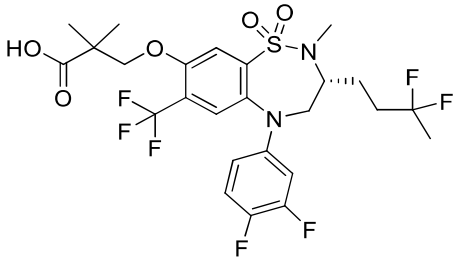
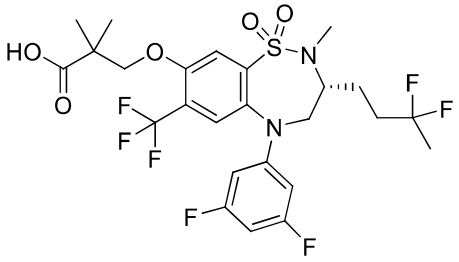
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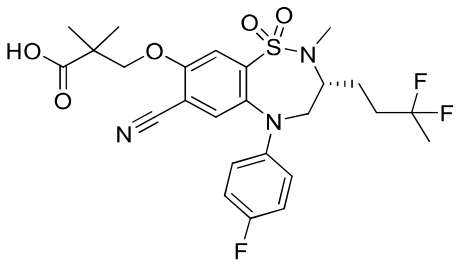
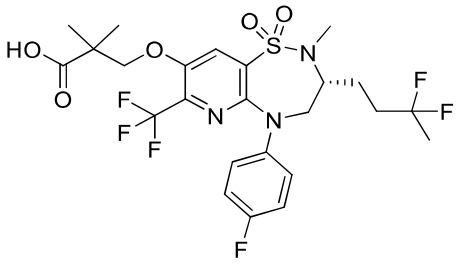
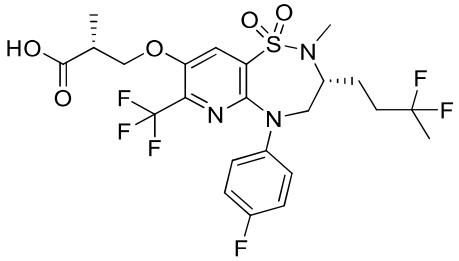
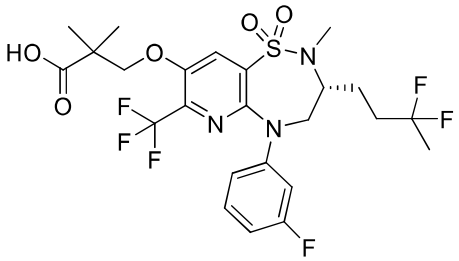
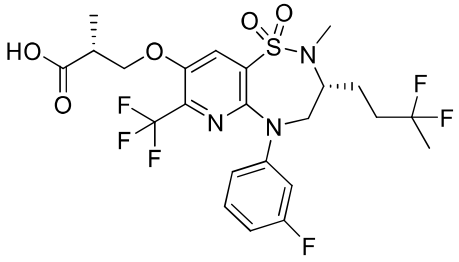
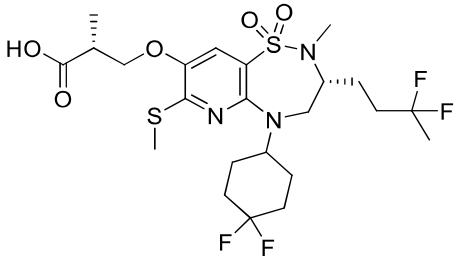
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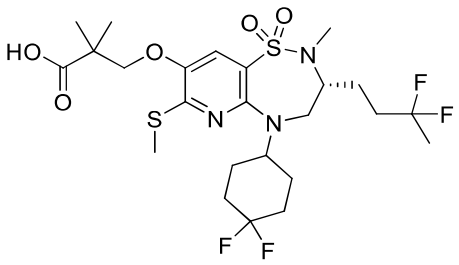
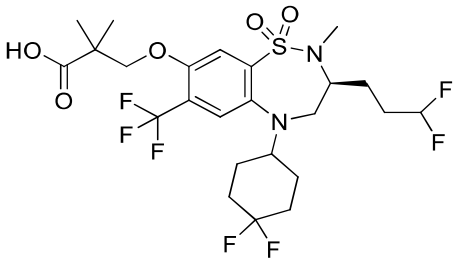
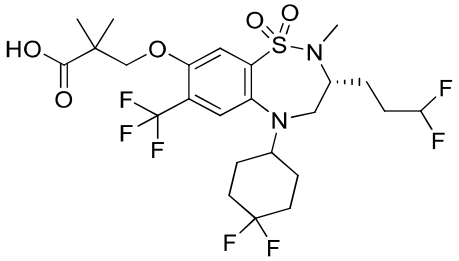
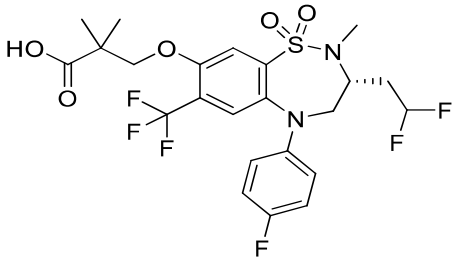
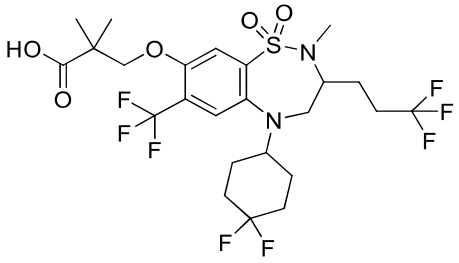
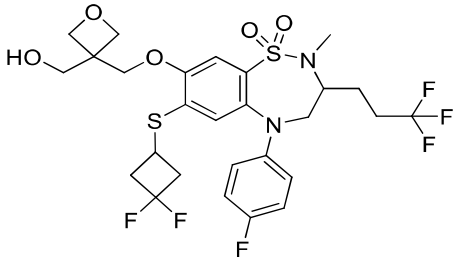
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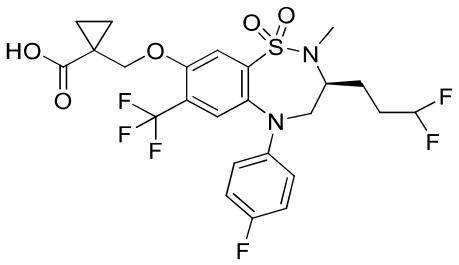
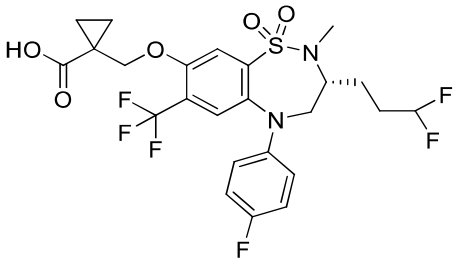
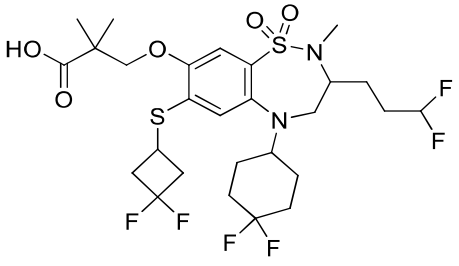
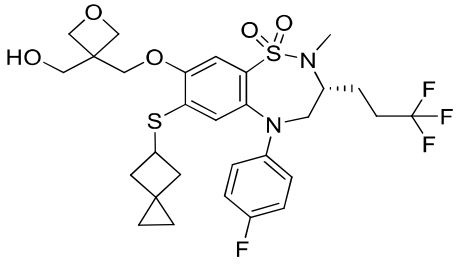
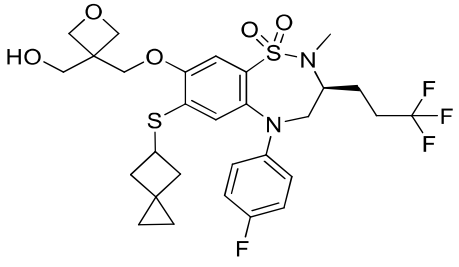
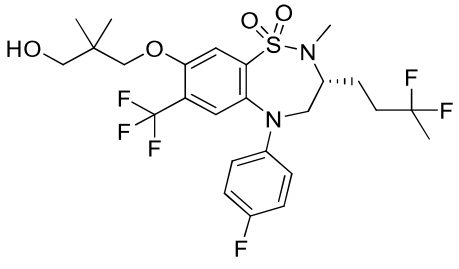
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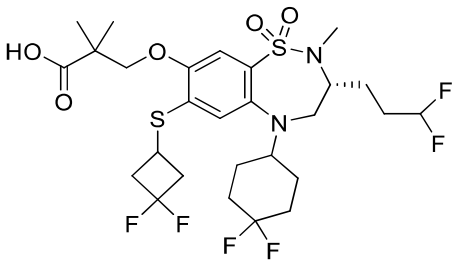
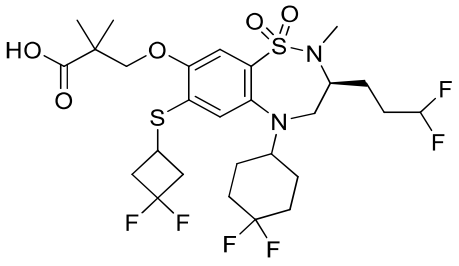
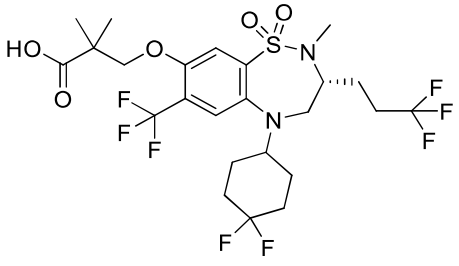
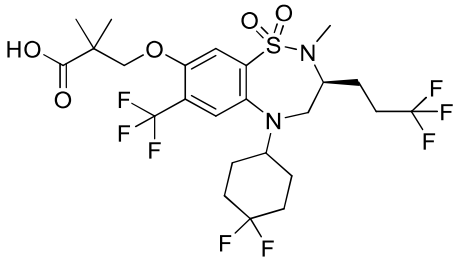
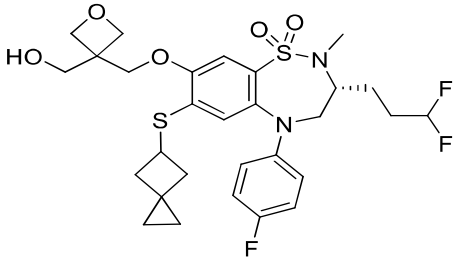
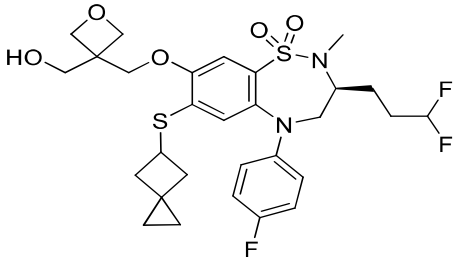
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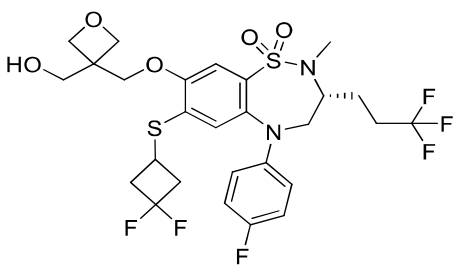
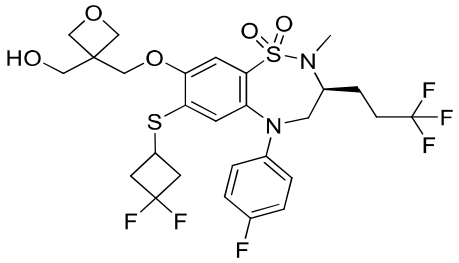
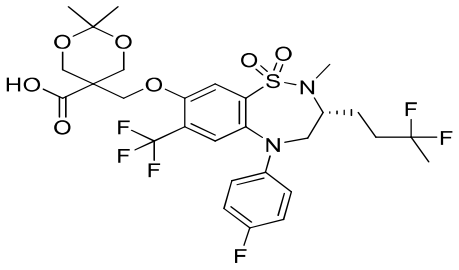
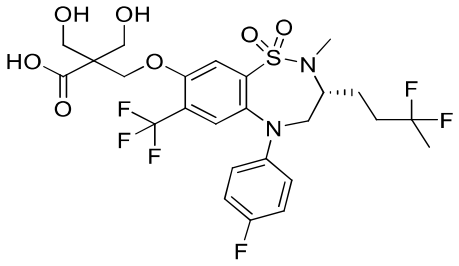
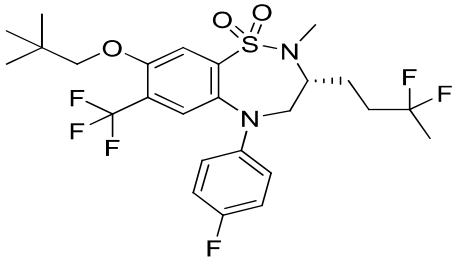
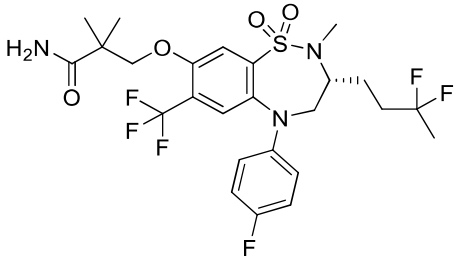
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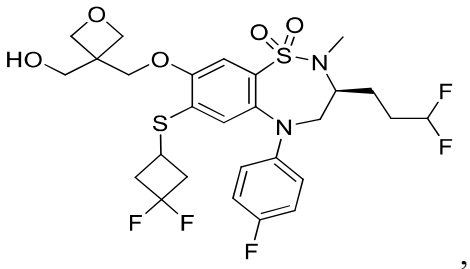
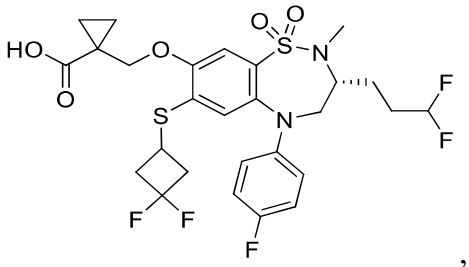
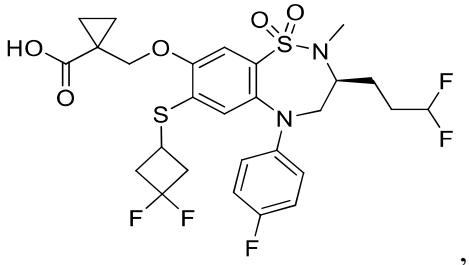
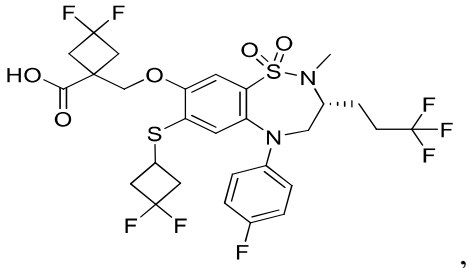
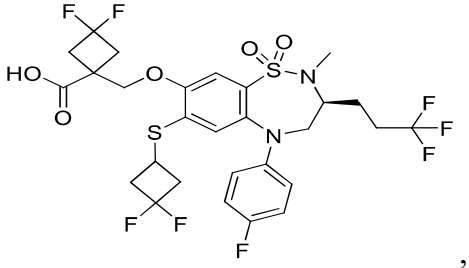
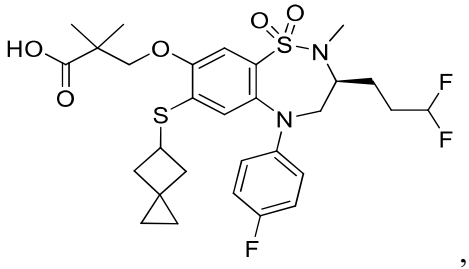
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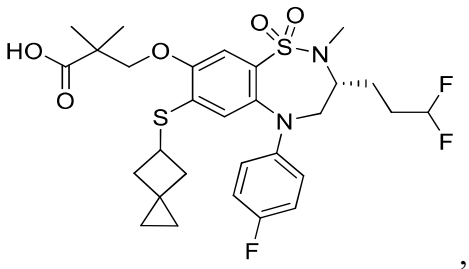
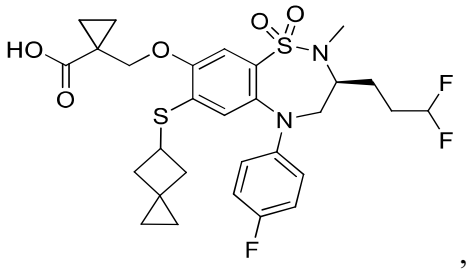
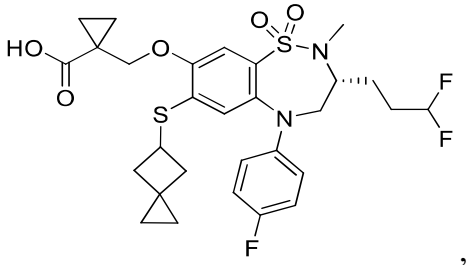
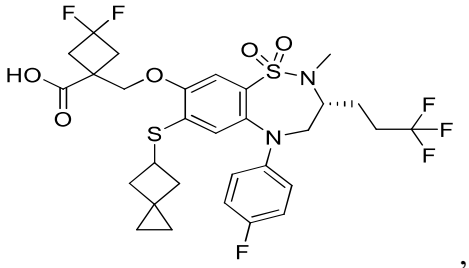
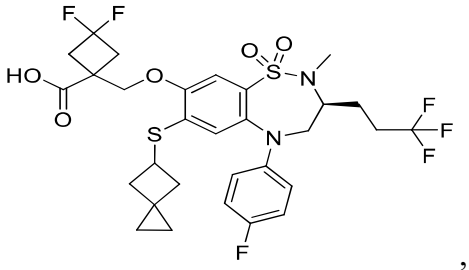
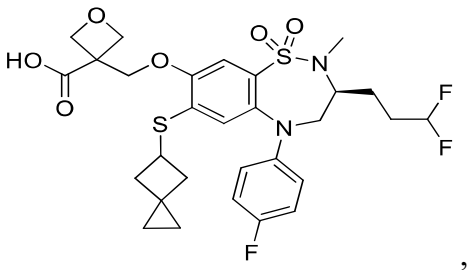
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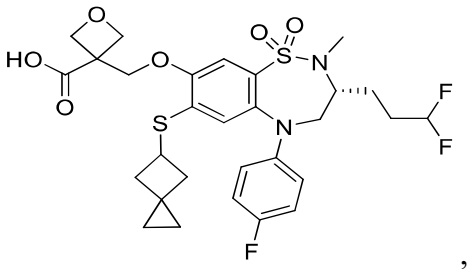
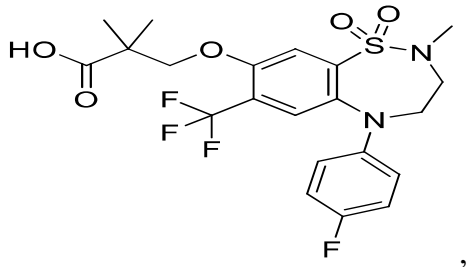
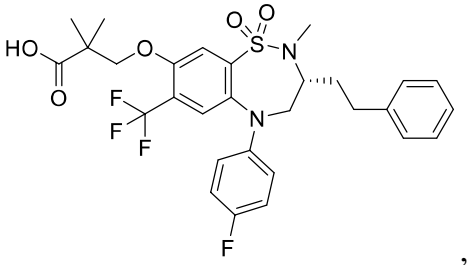
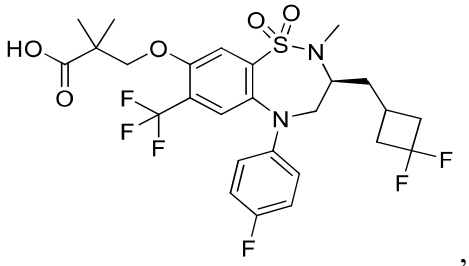
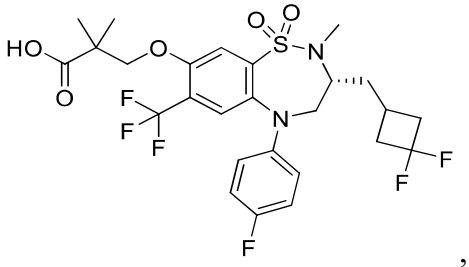
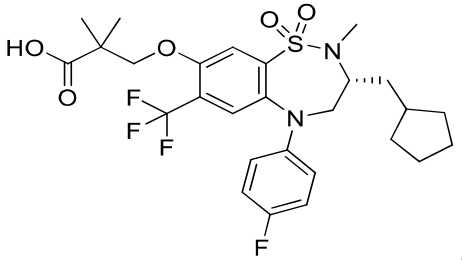
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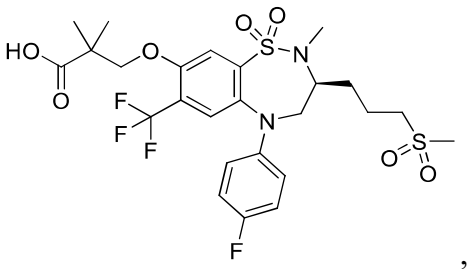
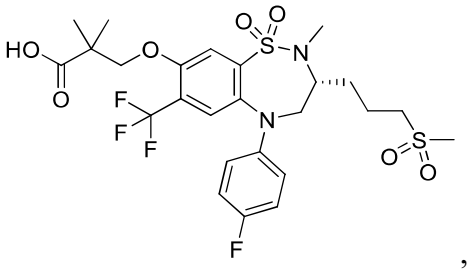
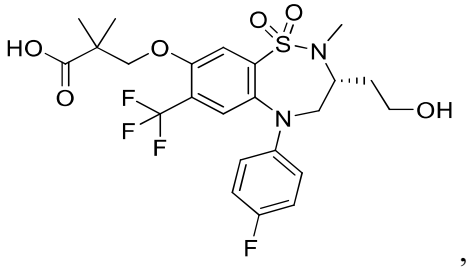
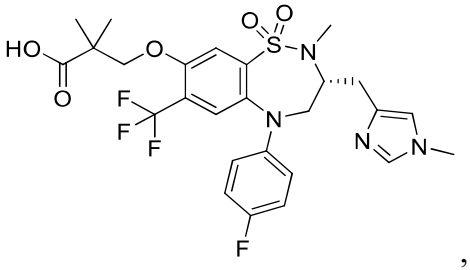
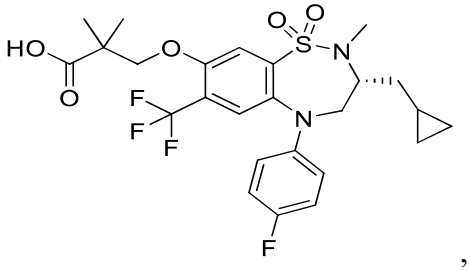
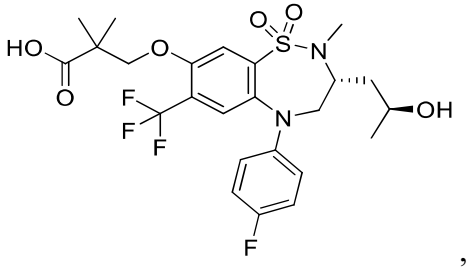
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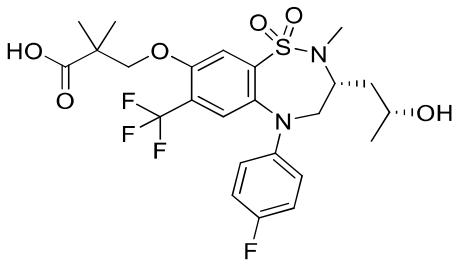
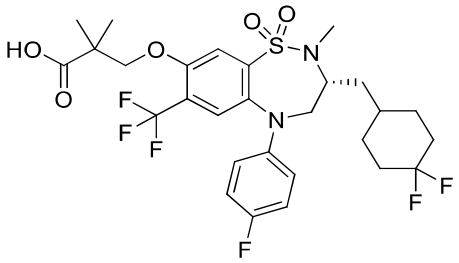
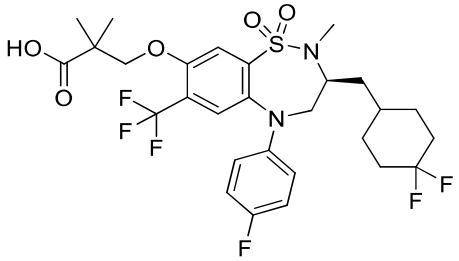
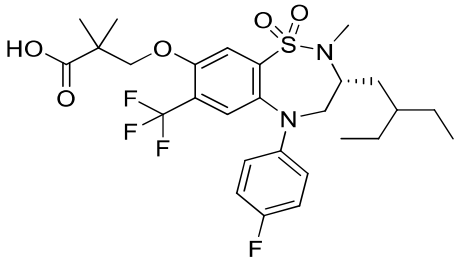
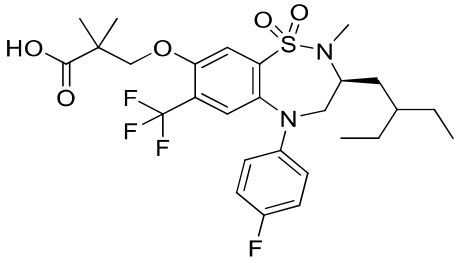
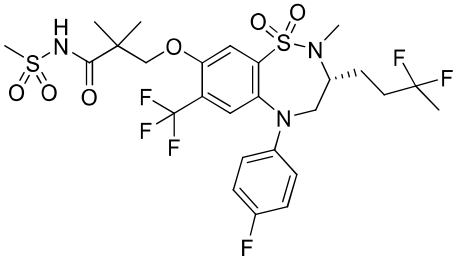
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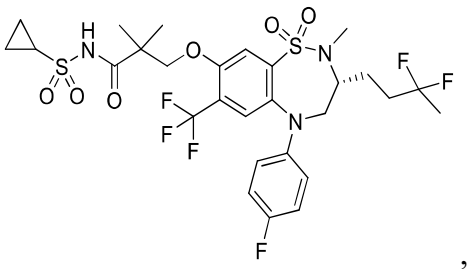
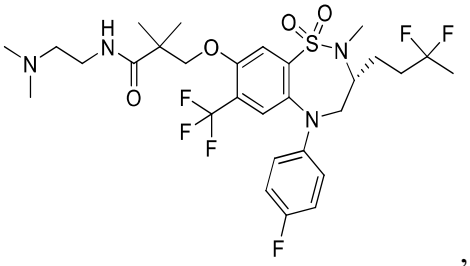
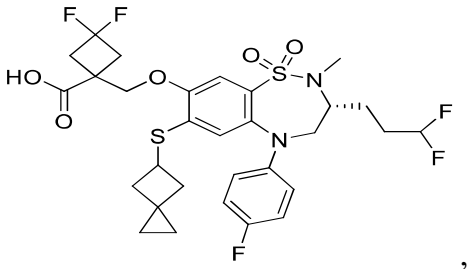
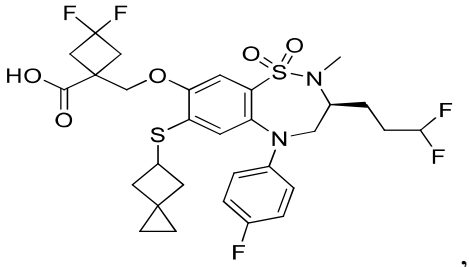
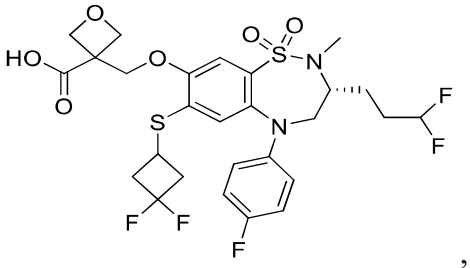
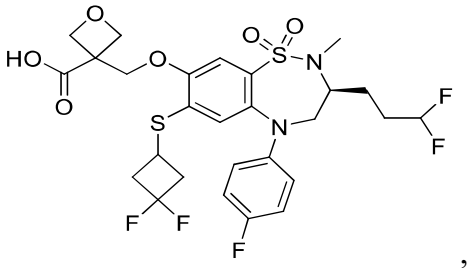
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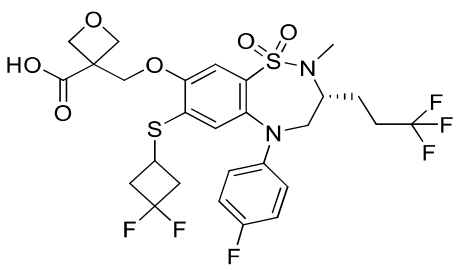
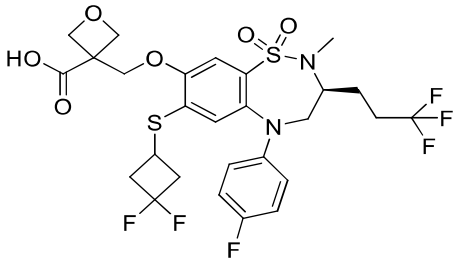
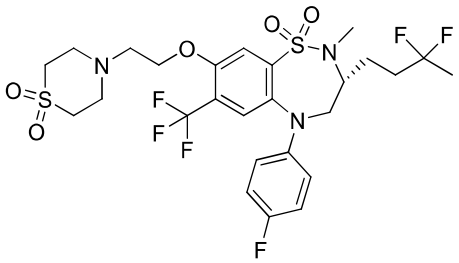
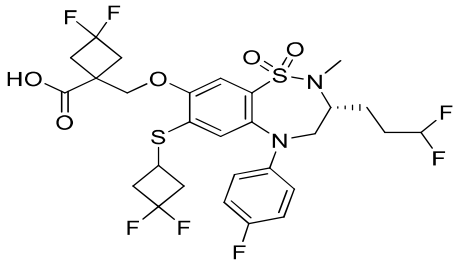
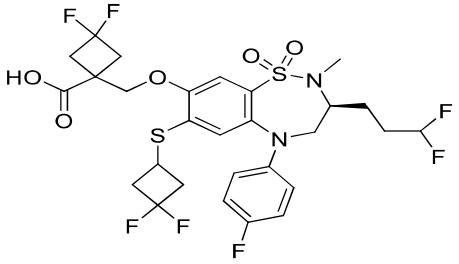
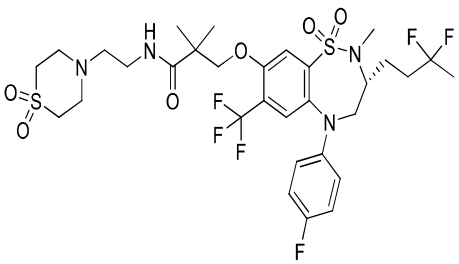
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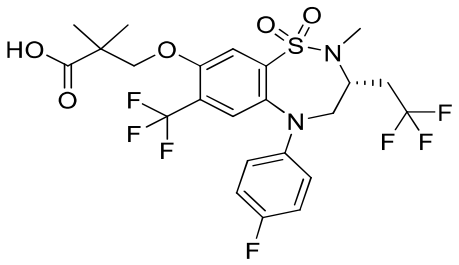
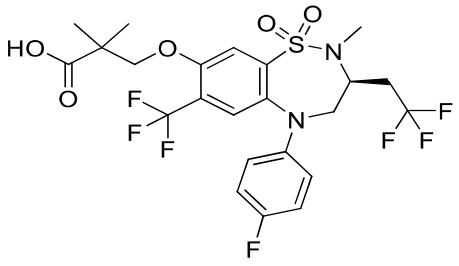
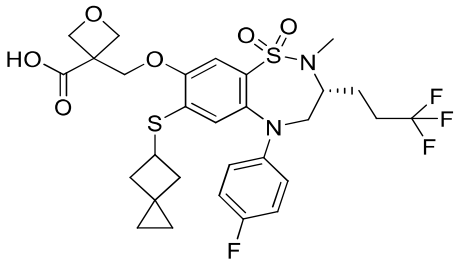
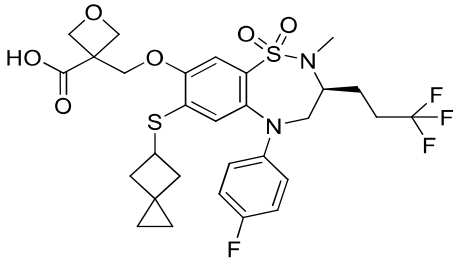
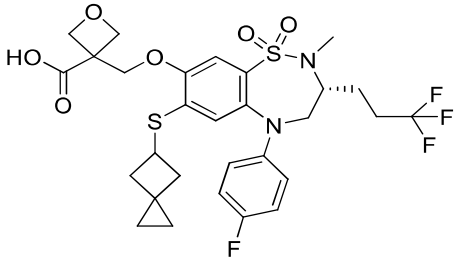
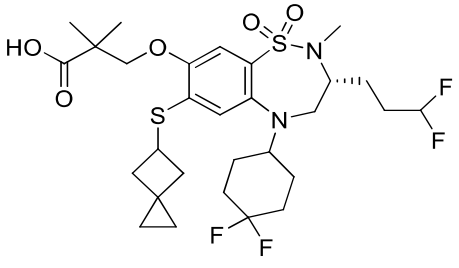
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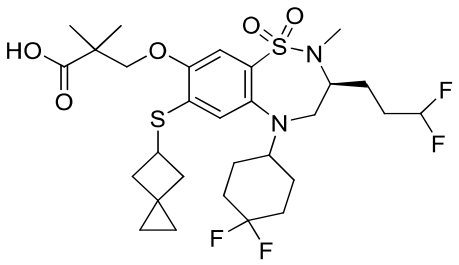
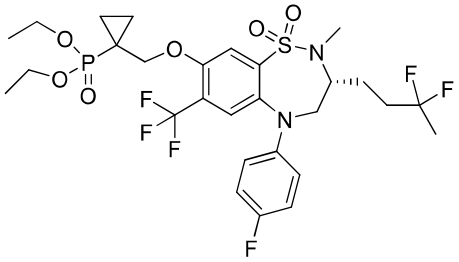
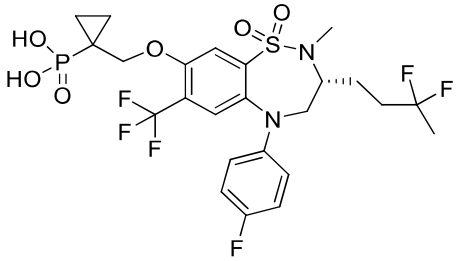
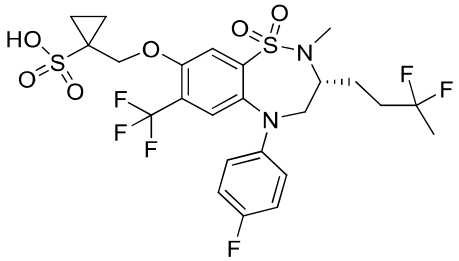
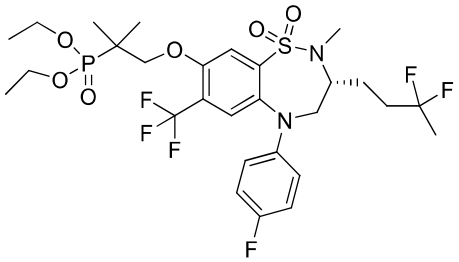
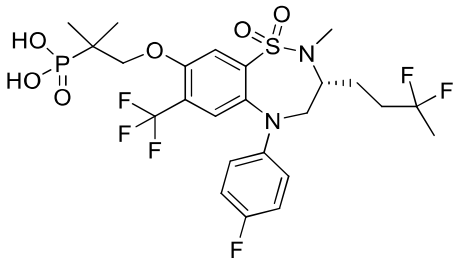
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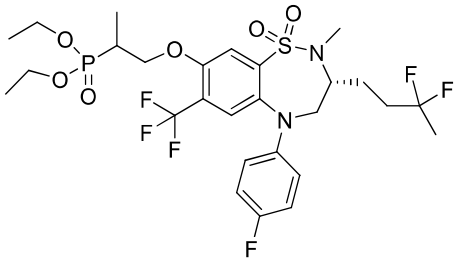
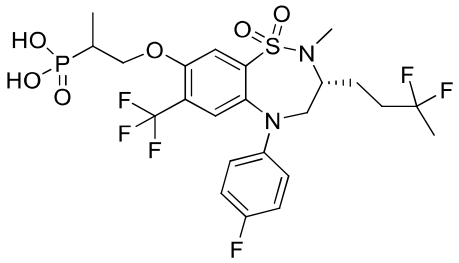
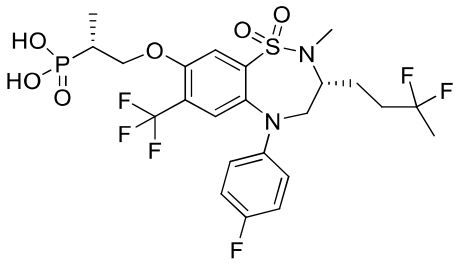
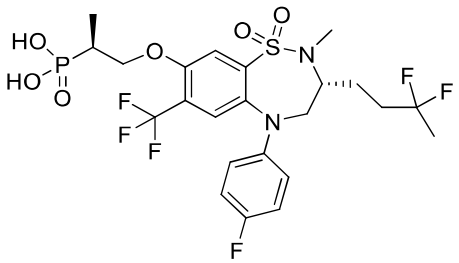
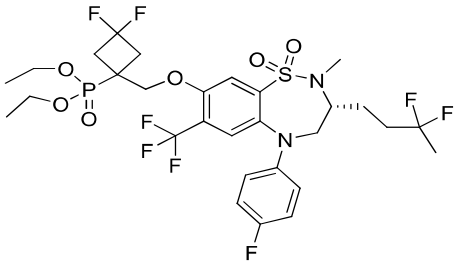
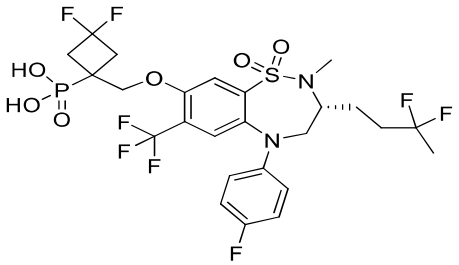
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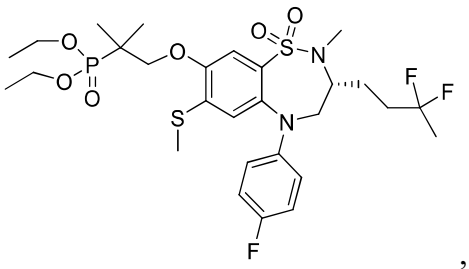
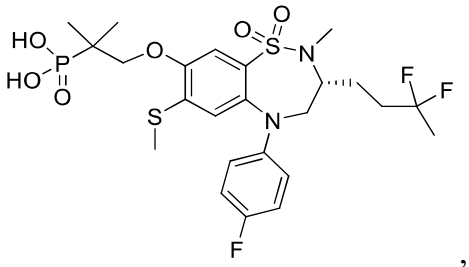
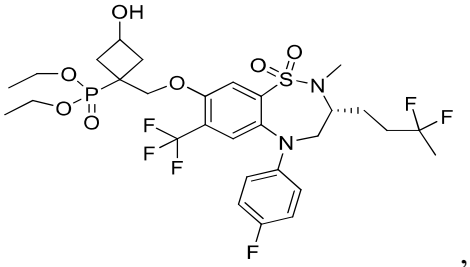
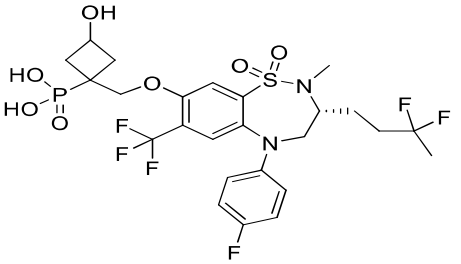
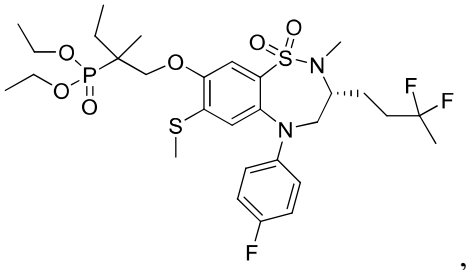
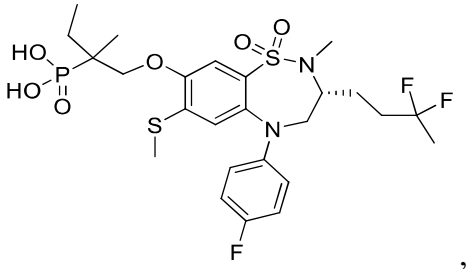
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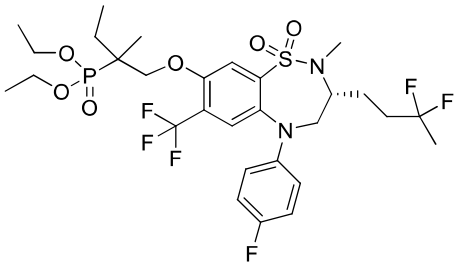
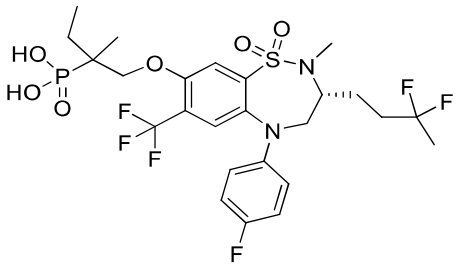
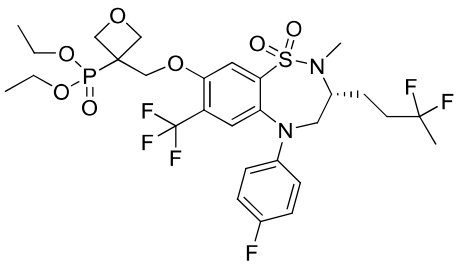
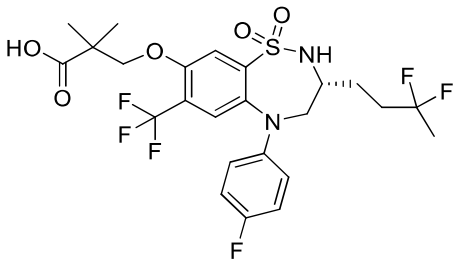
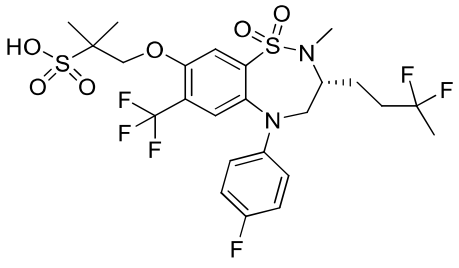
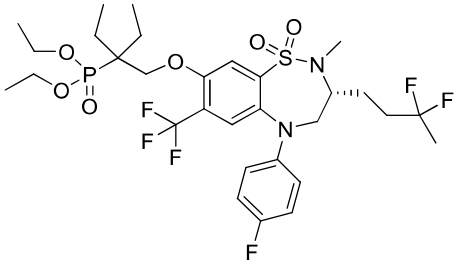
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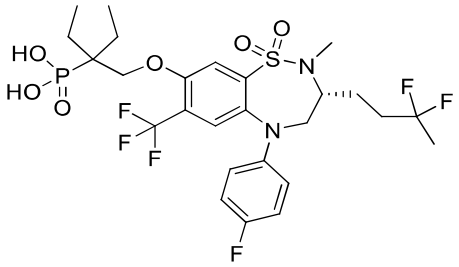
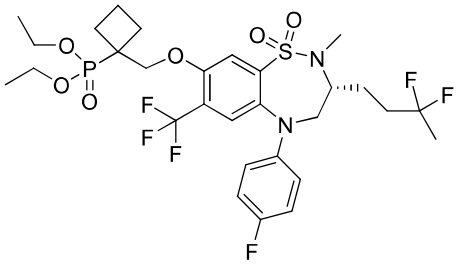
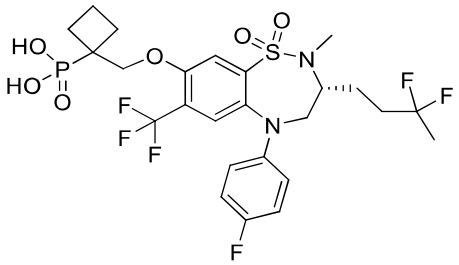
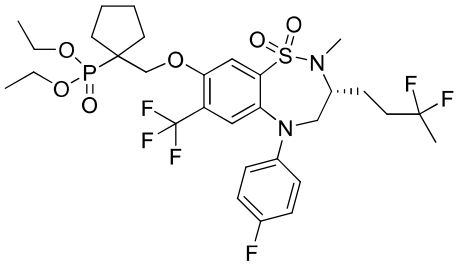
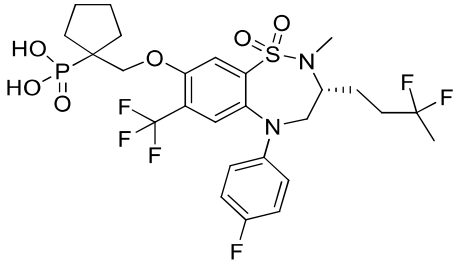
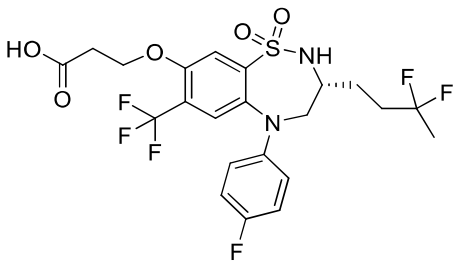
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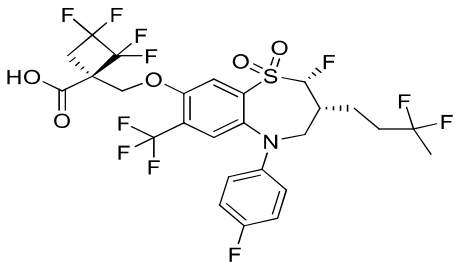
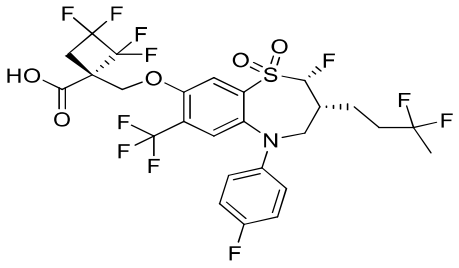
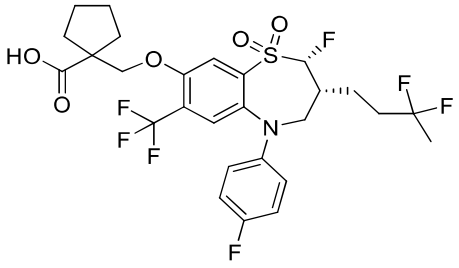
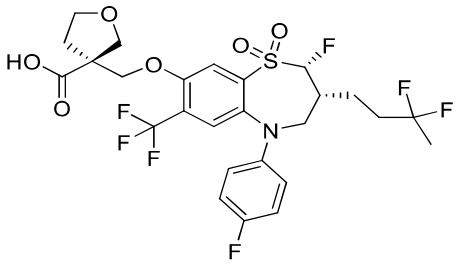
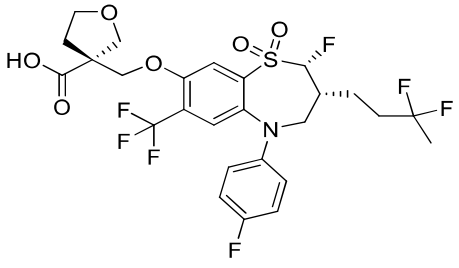
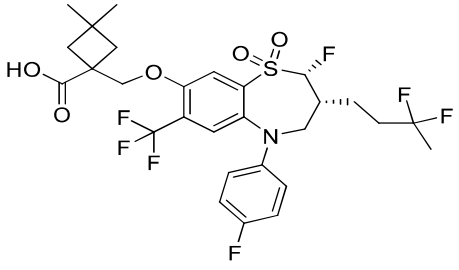
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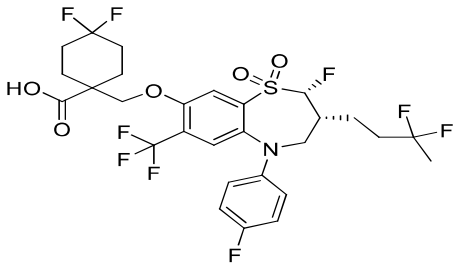
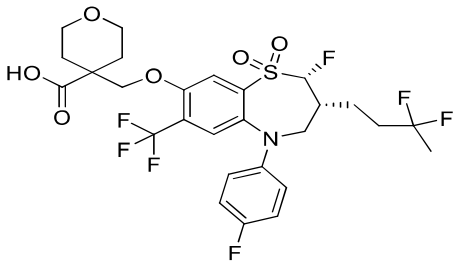
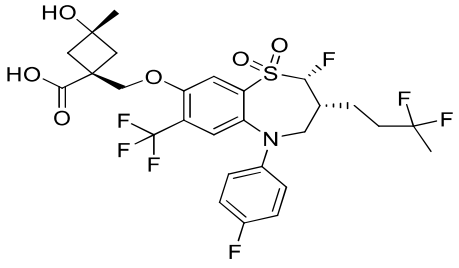
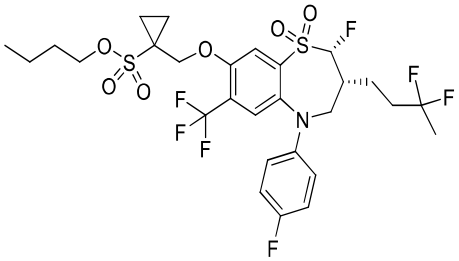
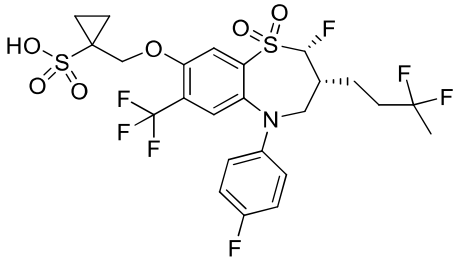
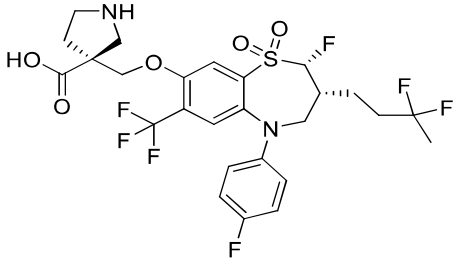
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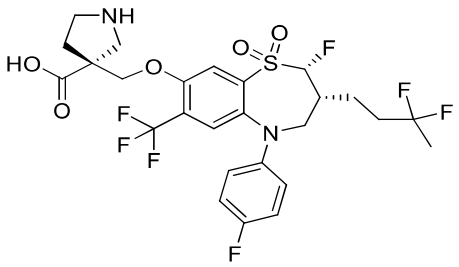
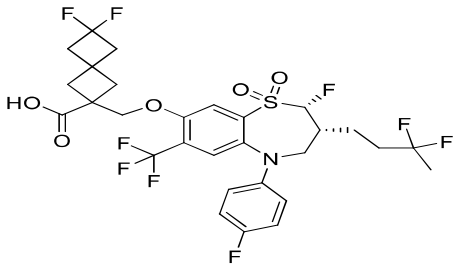
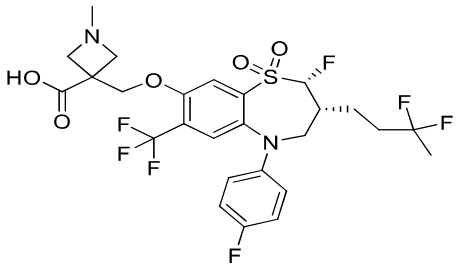
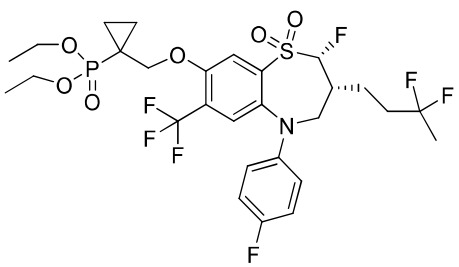
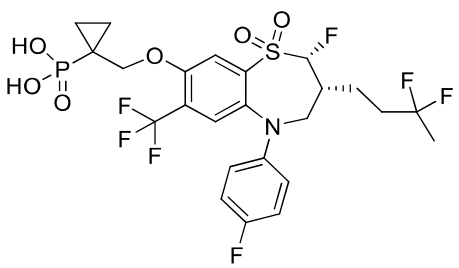
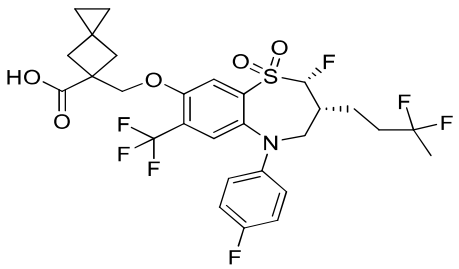
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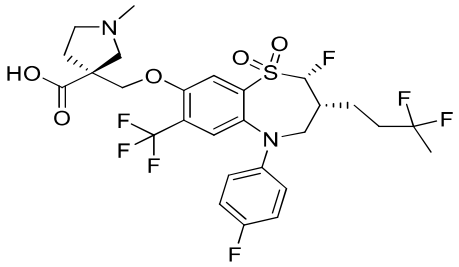
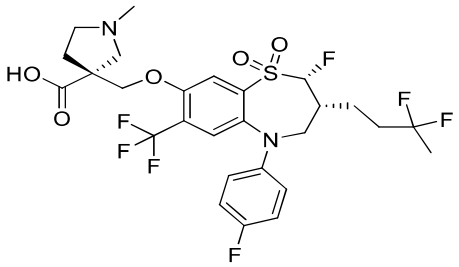
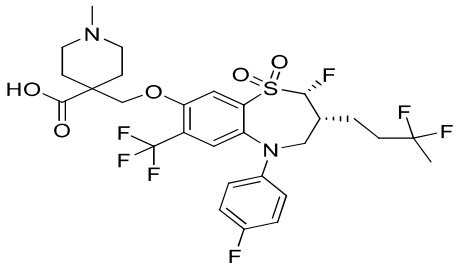
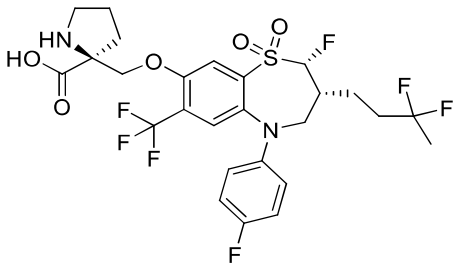
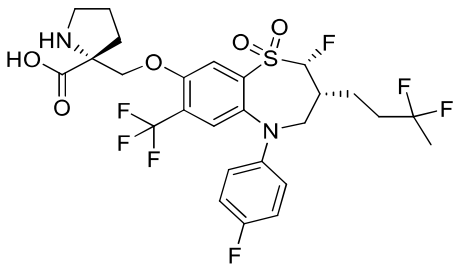
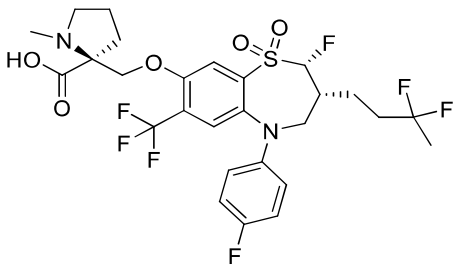
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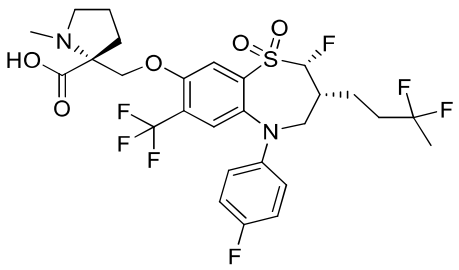
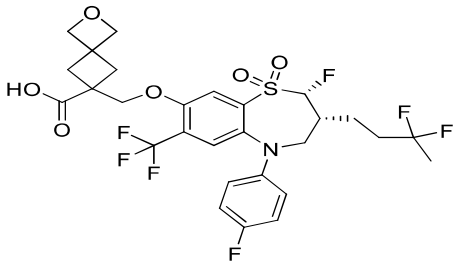
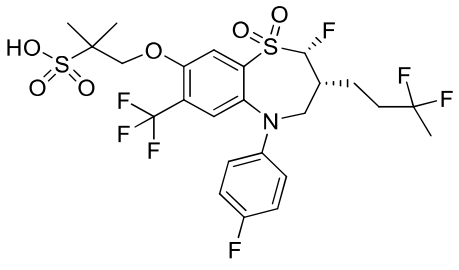
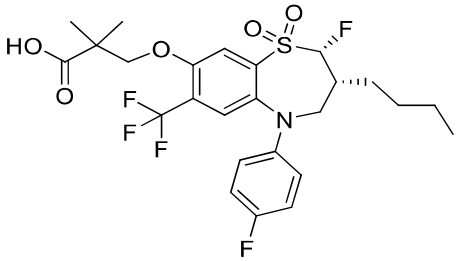
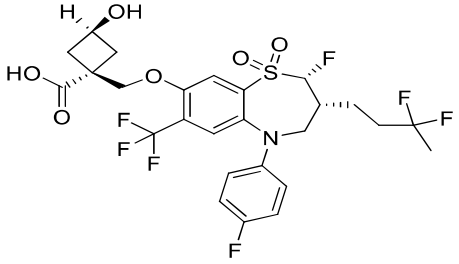
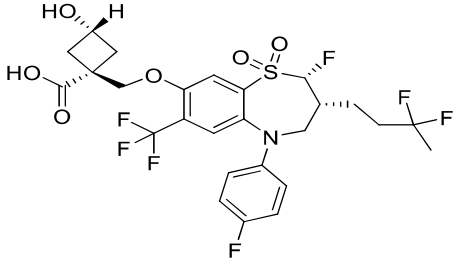
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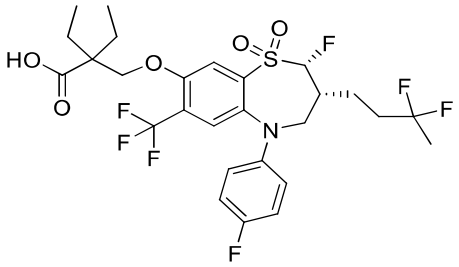
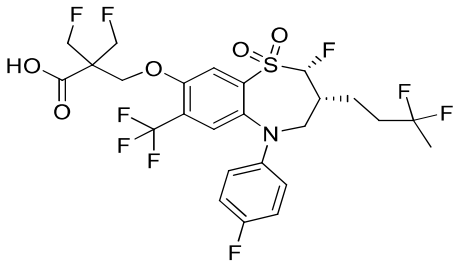
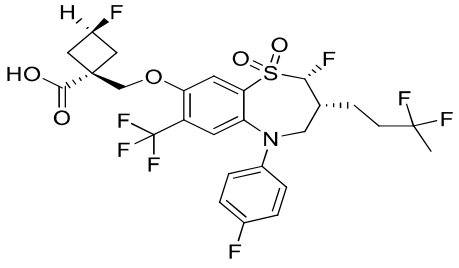
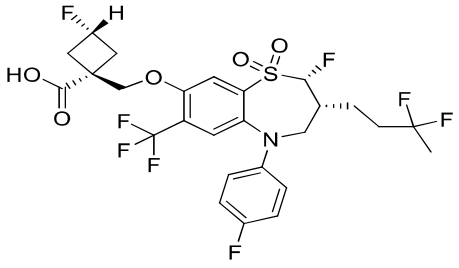
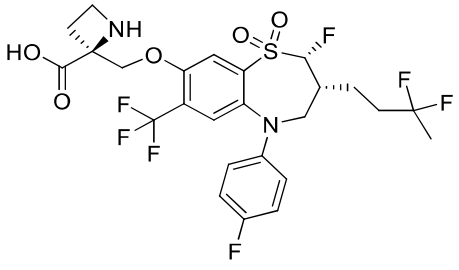
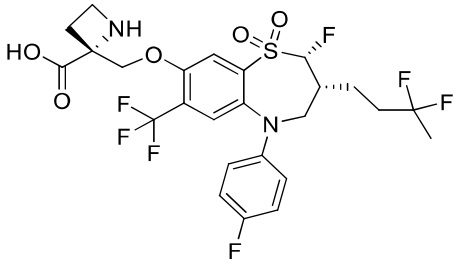
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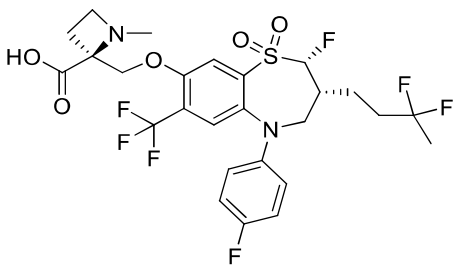
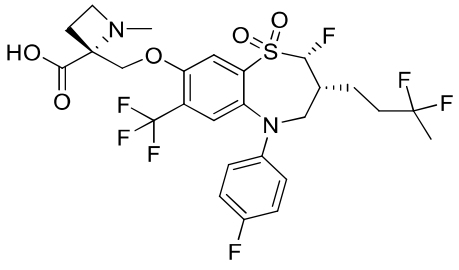
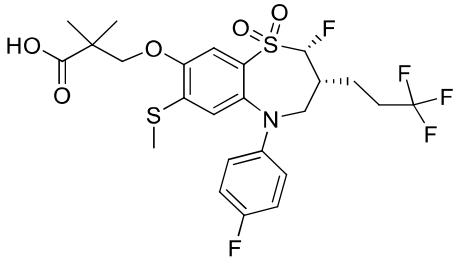
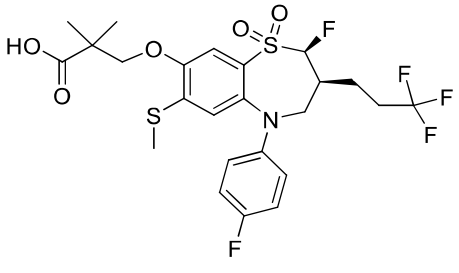
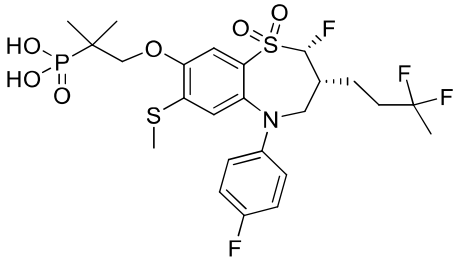
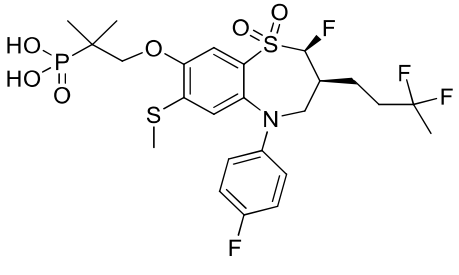
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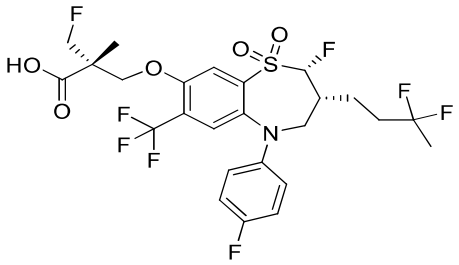
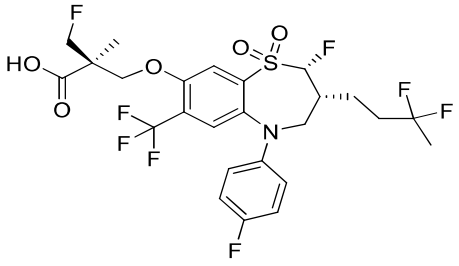
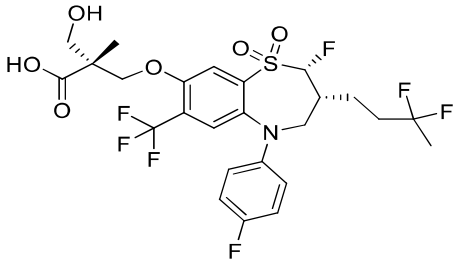
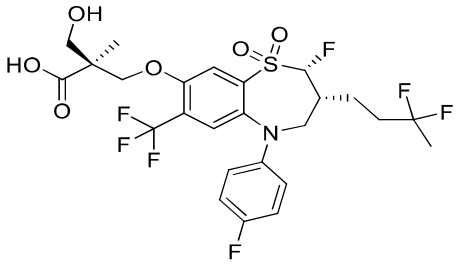
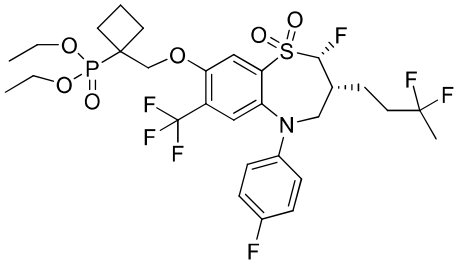
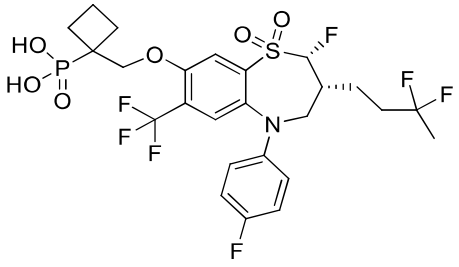
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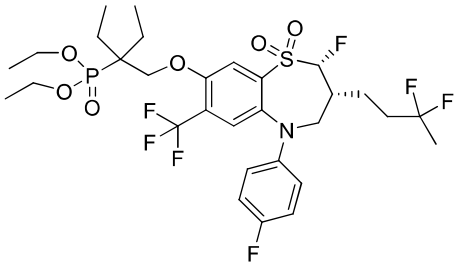
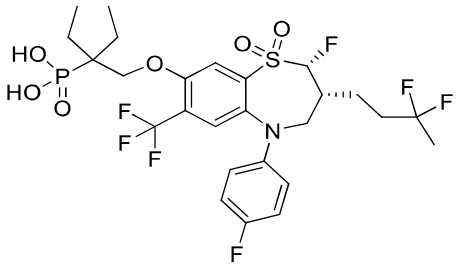
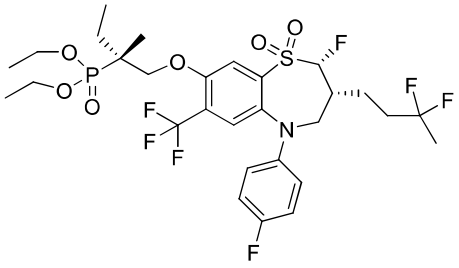
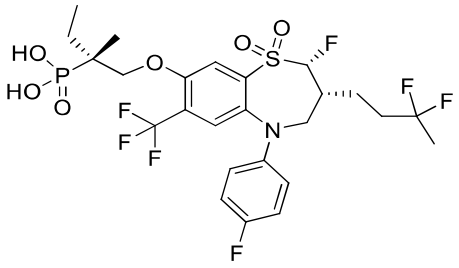
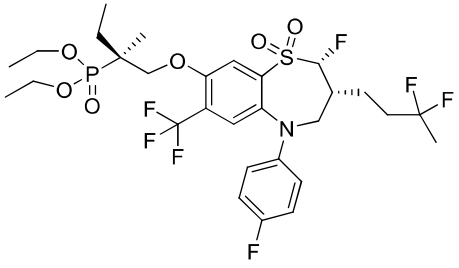
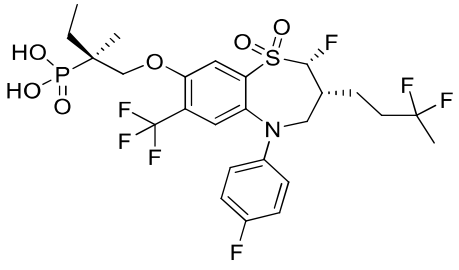
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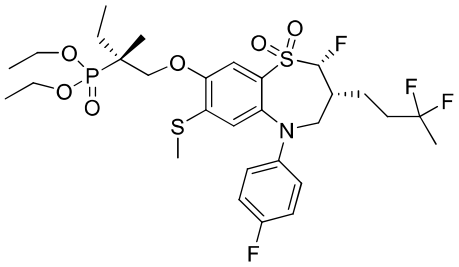
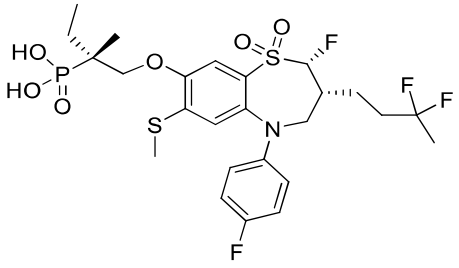
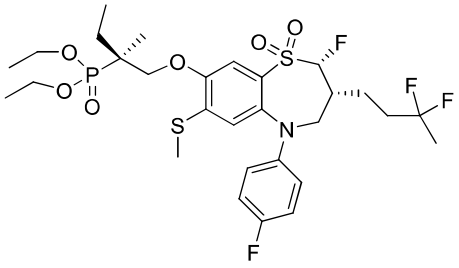
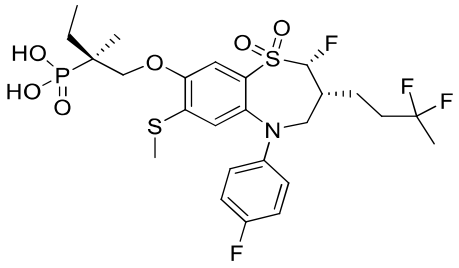
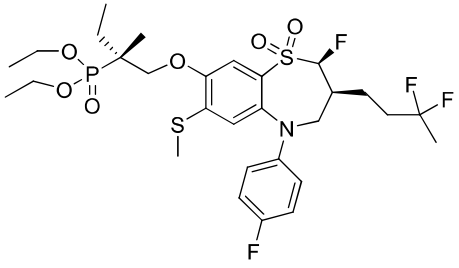
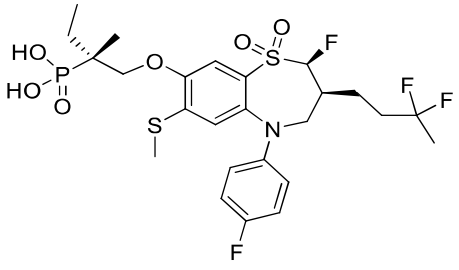
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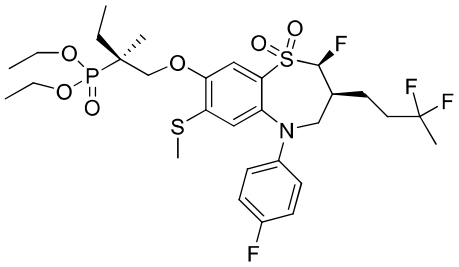
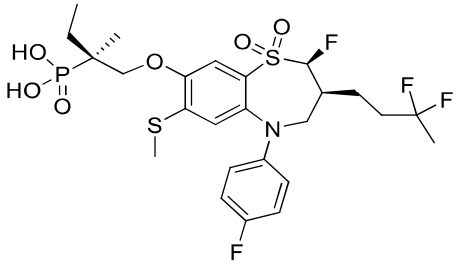
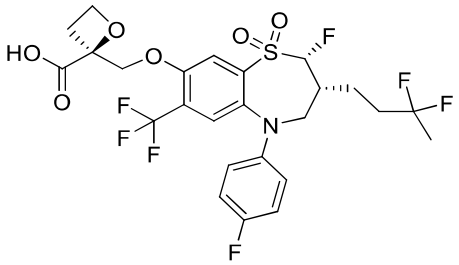
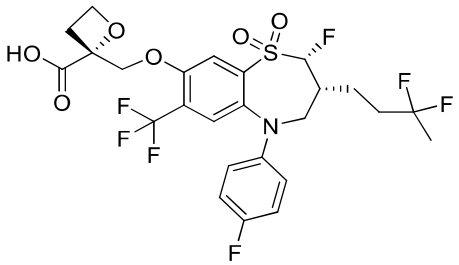
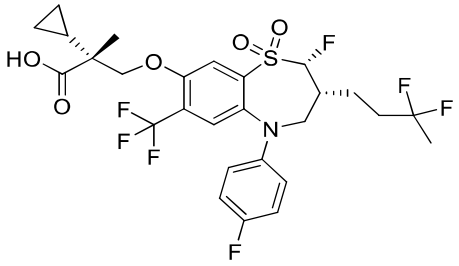
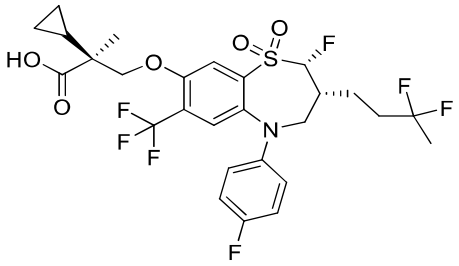
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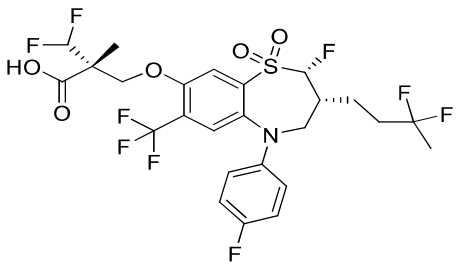
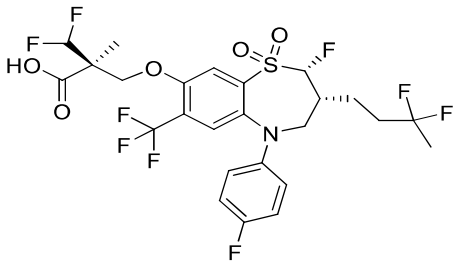
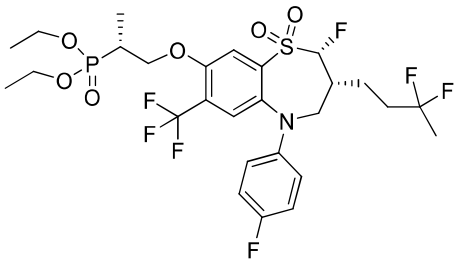
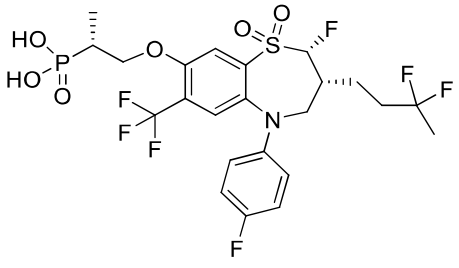
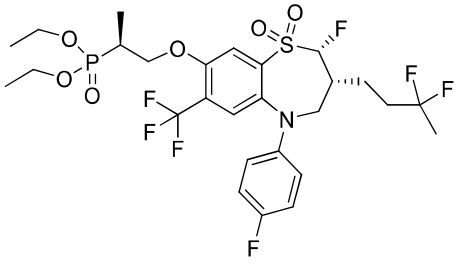
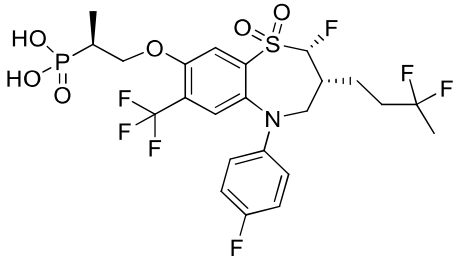
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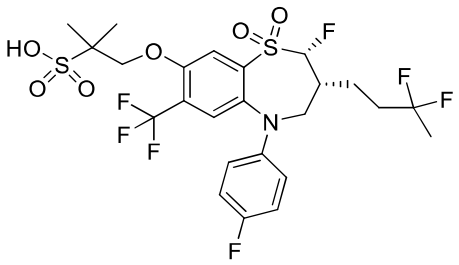
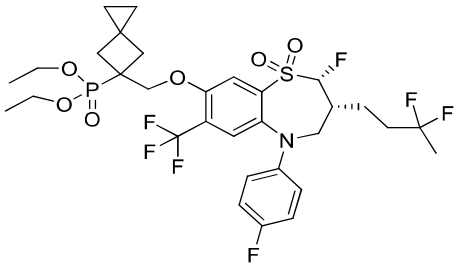
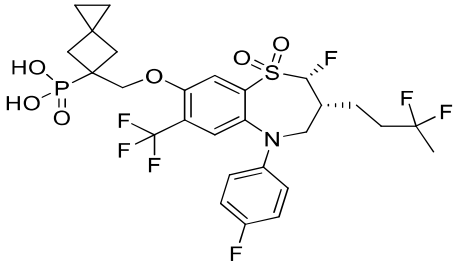
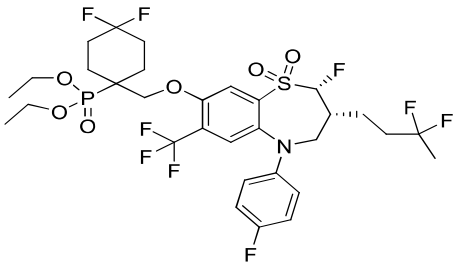
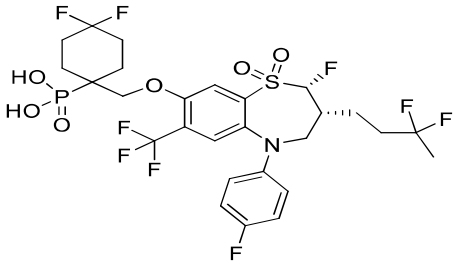
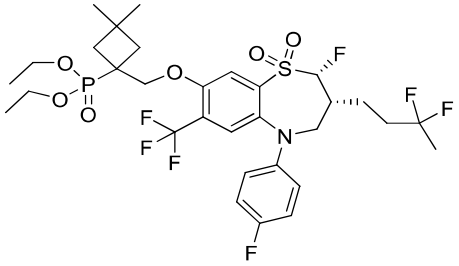
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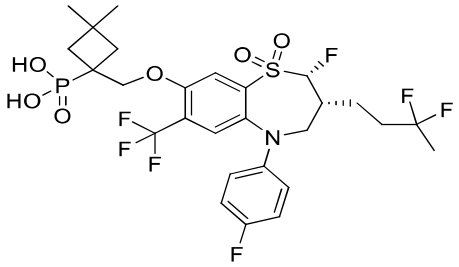
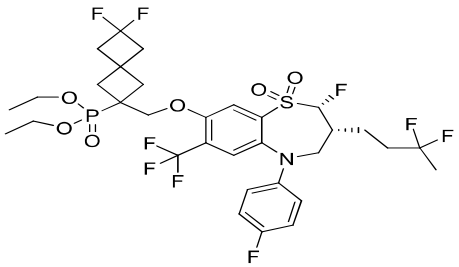
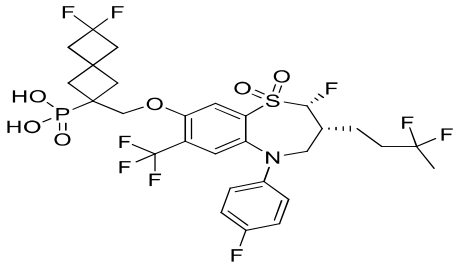
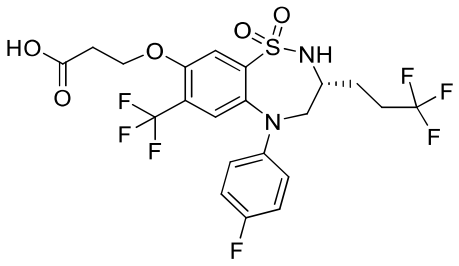
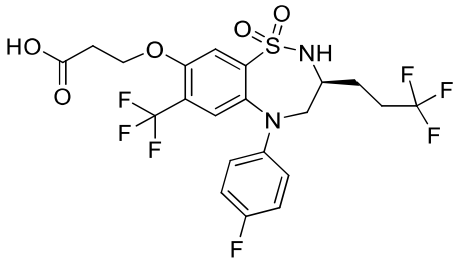
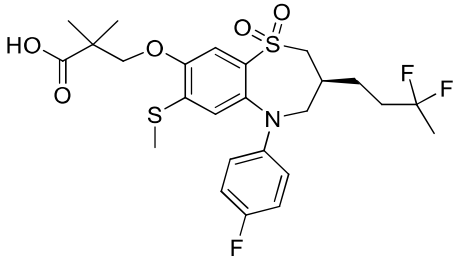
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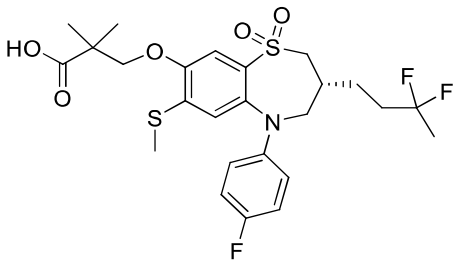
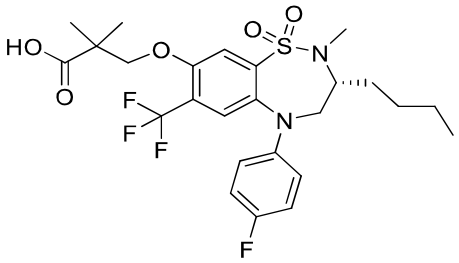
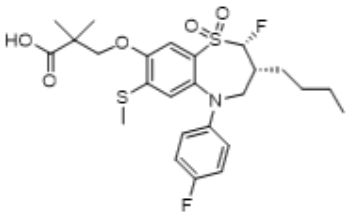
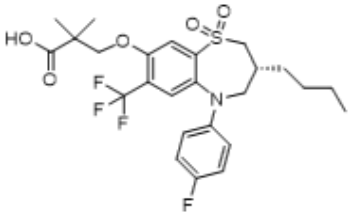
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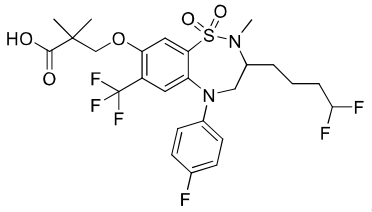
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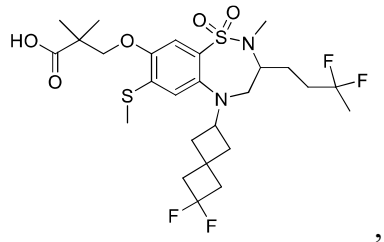
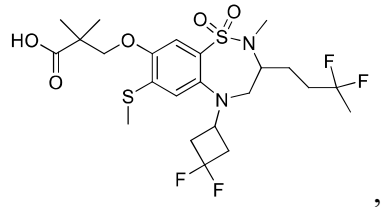
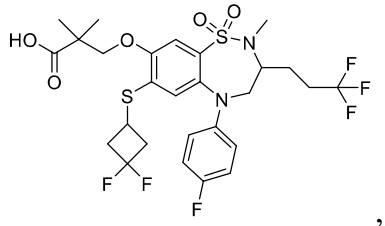
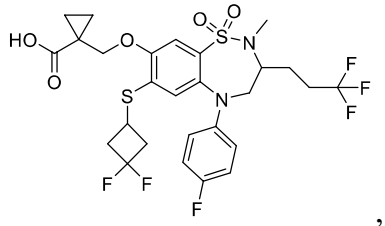
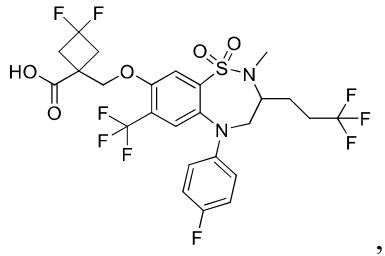
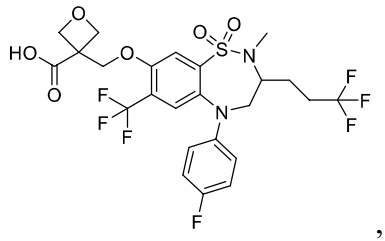
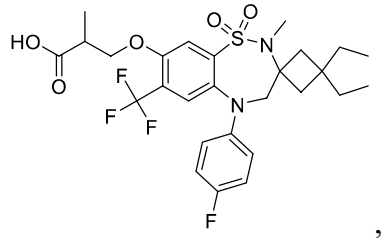
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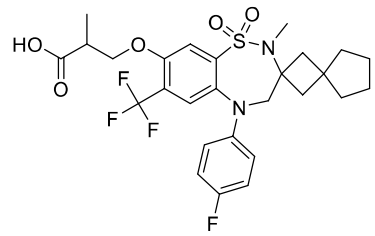
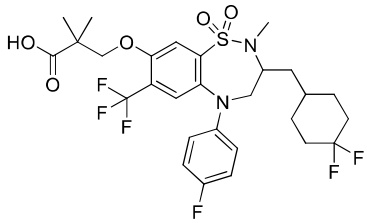
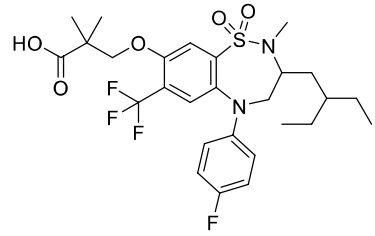
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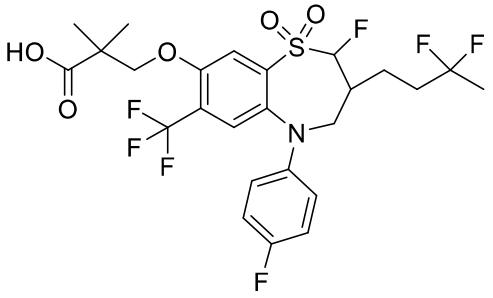
In another aspect, there is provided a compound, or a pharmaceutically acceptable salt thereof, wherein the compound is:

Example	Structure
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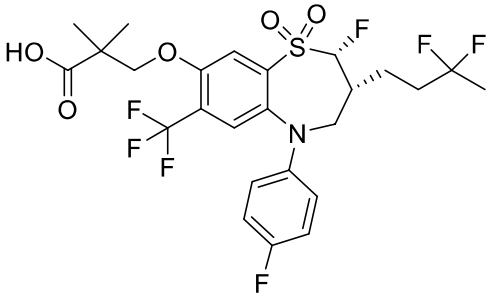
356	 ,
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436	 .

In another aspect, there is provided a compound

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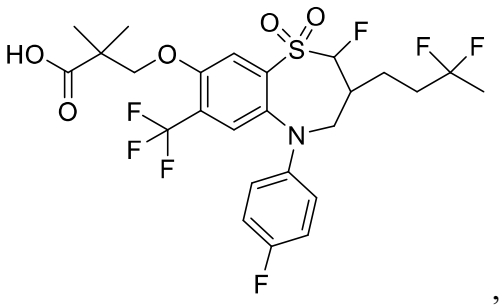
or a stereoisomer thereof, or a pharmaceutically acceptable salt thereof.

In another aspect, there is provided a compound

 ,

or a pharmaceutically acceptable salt thereof.

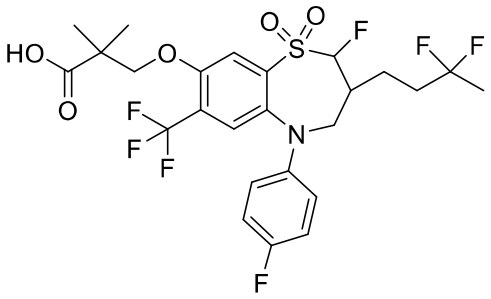
In another aspect, there is provided a compound



,

or a stereoisomer thereof.

In another aspect, there is provided a compound



.

In another aspect, the disclosure provides pharmaceutical compositions comprising a compound of Formula I, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

In another example, the disclosure provides a method of treating an HBV infection in a subject in need thereof, comprising: administering to the subject a therapeutically effective amount of compound of Formula I, or a pharmaceutically acceptable salt thereof.

In another example, the disclosure provides a method of treating an HBV infection in a subject in need thereof, comprising: administering to the subject a pharmaceutical composition comprising a therapeutically effective amount of a compound of Formula I, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

In another example, the disclosure provides a method of treating an HDV infection in a subject in need thereof, comprising: administering to the subject a therapeutically effective amount of compound of Formula I, or a pharmaceutically acceptable salt thereof.

In another example, the disclosure provides a method of treating an HDV infection in a subject in need thereof, comprising: administering to the subject a pharmaceutical composition comprising a therapeutically effective amount of a compound of Formula I, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

In another aspect, there is provided the use of a compound as defined above, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

In another aspect, there is provided the use of a pharmaceutical composition as defined above in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

In another aspect, there is provided the use of a compound as defined above, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

In another aspect, there is provide the use of a pharmaceutical composition as defined above, in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

In another aspect, there is provided the use of a compound as defined above, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating HBV/HDV coinfection.

In another aspect, there is provided the use of a pharmaceutical composition as defined above, in the manufacture of a medicament for treating HBV/HDV coinfection.

In another aspect, there is provided a compound as defined above, or a pharmaceutically acceptable salt thereof, for use in therapy.

In another aspect, there is provided a compound as defined above, or a pharmaceutically acceptable salt thereof, for use as a medicament.

BRIEF DESCRIPTION OF DRAWINGS

Figure 1 shows the ORTEP plot for Example 10b.

Figure 2 shows the ORTEP plot for Example 11a.

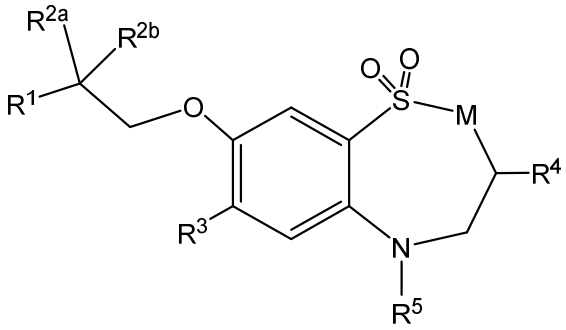
DETAILED DESCRIPTION

Hepatitis delta, also known as hepatitis D, is a liver infection caused by the hepatitis delta virus (HDV), resulting in the most severe form of viral hepatitis known in humans. HDV is a single-stranded, circular RNA virus. It relies on the hepatitis B virus (HBV) to infect and replicate in liver cells. HDV is a defective virus that lacks the ability to produce its own envelope proteins and is thus dependent on the presence of HBV that provides the envelope proteins. New HDV progeny particles can only be produced in a liver cell that is already infected with HBV.

Worldwide, approximately 300 million people are chronically infected with HBV. An estimated 15-20 million are also chronically infected with hepatitis delta. Coinfections lead to more serious liver disease than HBV infection alone. They are associated with faster

CLAIMS:

1. A compound of Formula II



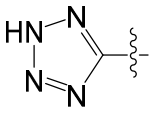
Formula II

, or a pharmaceutically acceptable salt thereof, wherein:

M is -CHF-, -CH(CH_3)-, -CF(CH_3)-, -CF_2-, or -C(CH_3)$_2$-;

R^a, R^b and R^c are independently selected for each occurrence from the group consisting of hydrogen, C_{1-6}alkyl, haloC_{1-6}alkyl and C_{3-6}monocycloalkyl;

R^1 is OH, CH_3, -C(O)NH_2, -C(O)OH, -C(O)OC_{1-6}alkyl, -P(O)(OH)$_2$, -S(O)$_2$OH or



;

R^{2a} and R^{2b} are independently selected from the group consisting of hydrogen, halo, OH, methyl, ethyl and CH_2OH; or R^{2a} and R^{2b} together with the carbon atom to which they are attached form a C=CH_2, C_{3-6}monocycloalkyl, oxetanyl, tetrahydrofuranyl, tetrahydropyranyl or 1,3-dioxanyl group, wherein the C_{3-6}monocycloalkyl, oxetanyl, tetrahydrofuranyl, tetrahydropyranyl or 1,3-dioxanyl group is optionally substituted with 1 to 3 independently selected from halo and methyl groups;

R^3 is selected from the group consisting of hydrogen, halogen, cyano, R^aR^bN-, C_{1-4}alkyl, haloC_{1-4}alkyl, C_{1-4}alkoxy, haloC_{1-4}alkoxy, C_{1-4}alkylthio, haloC_{1-4}alkylthio, C_{3-7}monocycloalkyl, C_{3-7}monocycloalkyloxy, C_{3-7}monocycloalkylthio, C_{3-7}monocycloalkyl-CH_2-thio, and C_{5-12}bicycloalkylthio, wherein the C_{3-7}monocycloalkyl, C_{3-7}monocycloalkyloxy, C_{3-7}monocycloalkylthio, C_{3-7}monocycloalkyl-CH_2-thio, and C_{5-12}bicycloalkylthio group is optionally substituted with 1 to 3 halo groups;

R^4 is haloC_{3-4}alkyl;

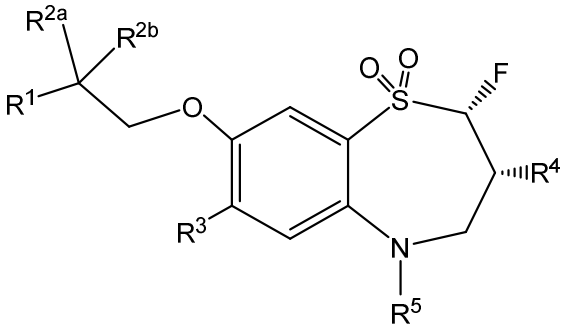
R^5 is phenyl, C_{3-7}monocycloalkyl or C_{5-12}bicycloalkyl, wherein the phenyl, C_{3-7}monocycloalkyl or C_{5-12}bicycloalkyl is optionally substituted with one to six substituents

independently selected form the group consisting of halo, OH, CN, HOC(O)-, R^aR^bN-, $R^aR^bNS(O)_q$-, C_{1-4}alkyl, C_{2-4}alkenyl, C_{2-4}alkynyl, haloC_{1-4}alkyl, hydroxyC_{1-4}alkyl-, $R^aR^bNC_{1-4}$alkyl-, C_{1-4}alkoxy, haloC_{1-4}alkoxy, hydroxyC_{1-4}alkoxy-, $R^aR^bNC_{1-4}$alkoxy-, C_{1-3}alkoxyC_{1-4}alkyl-, haloC_{1-3}alkoxyC_{1-4}alkyl-, $R^aR^bNC(O)$-, C_{1-4}alkylC(O)-, C_{1-4}alkoxyC(O)-, C_{1-4}alkylC(O)O-, C_{1-4}alkylS$(O)_q$-, C_{1-4}alkylS$(O)_qNR^c$-, C_{1-6}alkylS$(O)_qC_{1-4}$alkyl-, C_{1-4}alkylC(O)C_{1-6}alkyl-, and C_{1-6}alkylC(O)OC_{1-4}alkyl-; and

q is independently selected for each occurrence from the group consisting of 0, 1 and 2.

2. The compound of claim 1, or a pharmaceutically acceptable salt thereof, wherein M is -CHF-.

3. The compound of claim 1 or 2, wherein Formula II is of Formula IIa



Formula IIa

, or a pharmaceutically acceptable salt thereof.

4. The compound according to any one of claims 1-3, or a pharmaceutically acceptable salt thereof, wherein R^1 is -C(O)OH.

5. The compound according to any one of claims 1-3, or a pharmaceutically acceptable salt thereof, wherein R^1 is -$S(O)_2$OH.

6. The compound according to any one of claims 1-3, or a pharmaceutically acceptable salt thereof, wherein R^1 is -$P(O)(OH)_2$,

7. The compound according to any one of claims 1-6, or a pharmaceutically acceptable salt thereof, wherein R^{2a} and R^{2b} are independently selected from the group consisting of hydrogen, halo, OH and methyl.

8. The compound according to any one of claims 1-6, or a pharmaceutically acceptable salt thereof, wherein R^{2a} and R^{2b} are methyl.

9. The compound according to any one of claims 1-6, or a pharmaceutically acceptable salt thereof, wherein R^{2a} is hydrogen and R^{2b} are methyl.

10. The compound according to any one of claims 1-6, or a pharmaceutically acceptable salt thereof, wherein R^{2a} and R^{2b} together with the carbon atom to which they are attached form a $C=CH_2$, cyclopropyl, cyclobutyl, or oxetanyl group, wherein the cyclopropyl or cyclobutyl group is optionally substituted with 1-3 halo groups.

11. The compound of claim 10, or a pharmaceutically acceptable salt thereof, wherein R^{2a} and R^{2b} together with the carbon atom to which they are attached form a $C=CH_2$, cyclopropyl, cyclobutyl, or oxetanyl group.

12. The compound of claim 11, or a pharmaceutically acceptable salt thereof, wherein R^{2a} and R^{2b} together with the carbon atom to which they are attached form a cyclopropyl group.

13. The compound according to any one of claims 1-12, or a pharmaceutically acceptable salt thereof, wherein R^3 is halo$C_{1\text{-}2}$alkyl.

14. The compound of claim 13, or a pharmaceutically acceptable salt thereof, wherein R^3 is CF_3.

15. The compound according to any one of claims 1-12, or a pharmaceutically acceptable salt thereof, wherein R^3 is C_{5-12}bicycloalkylthio.

16. The compound according to any one of claims 1-12, or a pharmaceutically acceptable salt thereof, wherein R^3 is haloC_{3-7}monocycloalkylthio.

17. The compound according to any one of claims 1-16, or a pharmaceutically acceptable salt thereof, wherein R^4 is n-butyl substituted with 1 to 6 halo atoms.

18. The compound of claim 17, or a pharmaceutically acceptable salt thereof, wherein R^4 is n-butyl substituted with 1 to 6 F atoms.

19. The compound of claim 18, or a pharmaceutically acceptable salt thereof, wherein R^4 is $-CH_2CH_2CF_2CH_3$.

20. The compound according to any one of claims 1-16, or a pharmaceutically acceptable salt thereof, wherein R^4 is n-propyl substituted with 1 to 6 halo atoms.

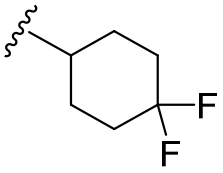
21. The compound of claim 20, or a pharmaceutically acceptable salt thereof, wherein R^4 is n-propyl substituted with 1 to 6 F atoms.

22. The compound of claim 21, or a pharmaceutically acceptable salt thereof, wherein R^4 is $-CH_2CH_2CF_3$.

23. The compound according to any one of claims 1-22, or a pharmaceutically acceptable salt thereof, wherein R^5 is C_{3-7}monocycloalkyl optionally substituted with one to six substituents independently selected form the group consisting of halo, OH, CN, HOC(O)-, R^aR^bN-, $R^aR^bNS(O)_q$-, C_{1-4}alkyl, C_{2-4}alkenyl, C_{2-4}alkynyl, haloC_{1-4}alkyl, hydroxyC_{1-4}alkyl-, $R^aR^bNC_{1-4}$alkyl-, C_{1-4}alkoxy, haloC_{1-4}alkoxy, hydroxyC_{1-4}alkoxy-, $R^aR^bNC_{1-4}$alkoxy-, C_{1-3}alkoxyC_{1-4}alkyl-, haloC_{1-3}alkoxyC_{1-4}alkyl-, $R^aR^bNC(O)$-, C_{1-4}alkylC(O)-, C_{1-4}alkoxyC(O)-,

C_{1-4}alkylC(O)O-, C_{1-4}alkylS(O)$_q$-, C_{1-4}alkylS(O)$_q$NR^c-, C_{1-6}alkylS(O)$_q$$C_{1-4}$alkyl-, C_{1-4}alkylC(O)C_{1-6}alkyl-, and C_{1-6}alkylC(O)OC_{1-4}alkyl-.

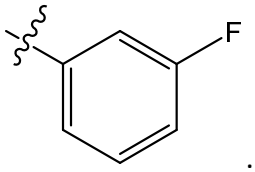
24. The compound of claim 23, or a pharmaceutically acceptable salt thereof, wherein

R^5 is  or 

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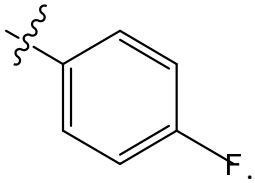
25. The compound according to an one of claims 1- 22, or a pharmaceutically acceptable salt thereof, wherein In certain embodiments, R^5 is phenyl optionally substituted with one to six substituents independently selected form the group consisting of halo, OH, CN, HOC(O)-, R^{a}R^{b}N-, R^{a}R^{b}NS(O)$_q$-, C_{1-4}alkyl, C_{2-4}alkenyl, C_{2-4}alkynyl, haloC_{1-4}alkyl, hydroxyC_{1-4}alkyl-, R^{a}R^{b}NC_{1-4}alkyl-, C_{1-4}alkoxy, haloC_{1-4}alkoxy, hydroxyC_{1-4}alkoxy-, R^{a}R^{b}NC_{1-4}alkoxy-, C_{1-3}alkoxyC_{1-4}alkyl-, haloC_{1-3}alkoxyC_{1-4}alkyl-, R^{a}R^{b}NC(O)-, C_{1-4}alkylC(O)-, C_{1-4}alkoxyC(O)-, C_{1-4}alkylC(O)O-, C_{1-4}alkylS(O)$_q$-, C_{1-4}alkylS(O)$_q$NR^c-, C_{1-6}alkylS(O)$_q$$C_{1-4}$alkyl-, C_{1-4}alkylC(O)C_{1-6}alkyl-, and C_{1-6}alkylC(O)OC_{1-4}alkyl-.

26. The compound of claim 25, or a pharmaceutically acceptable salt thereof, wherein

R^5 is 

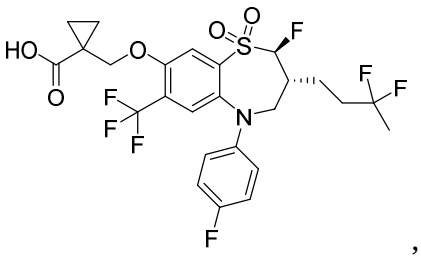
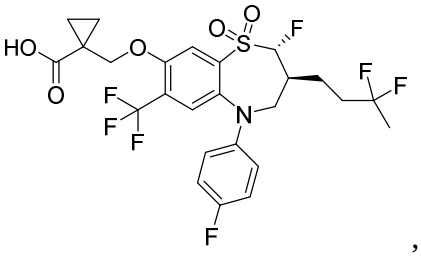
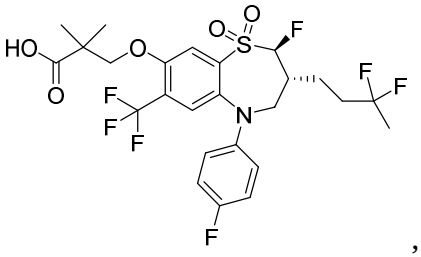
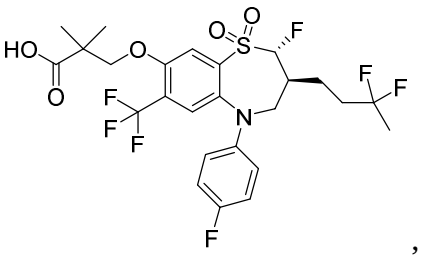
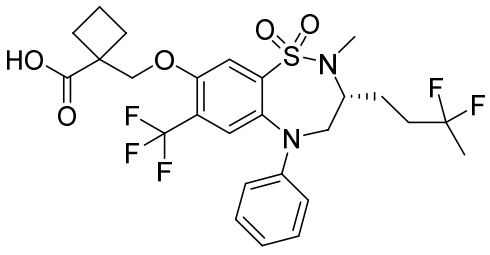
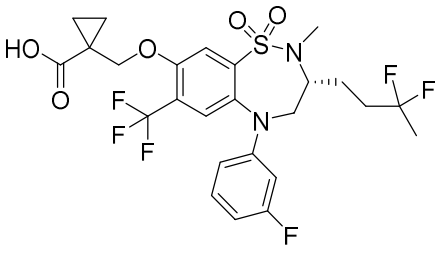
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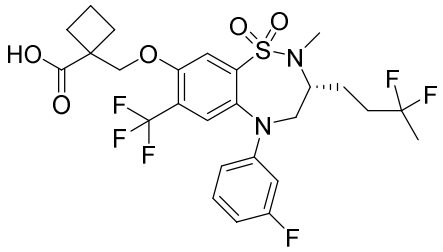
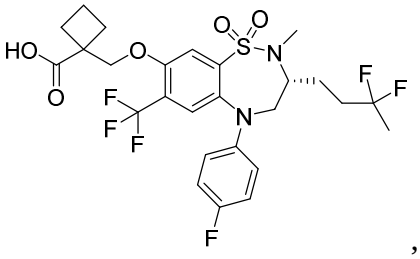
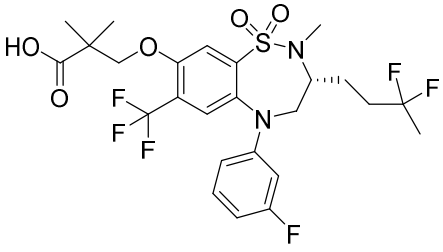
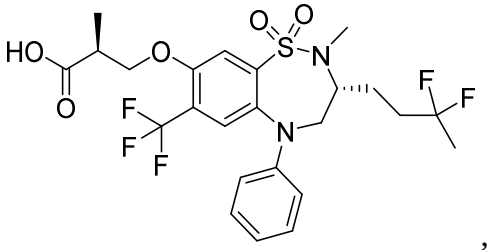
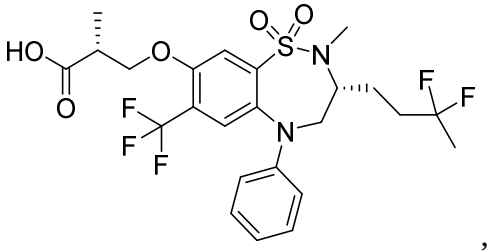
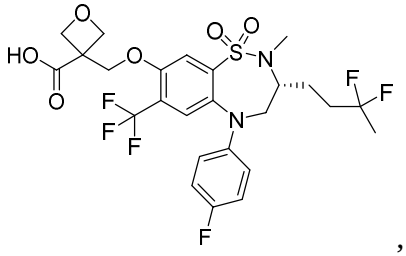
27. The compound of claim 25, or a pharmaceutically acceptable salt thereof, wherein

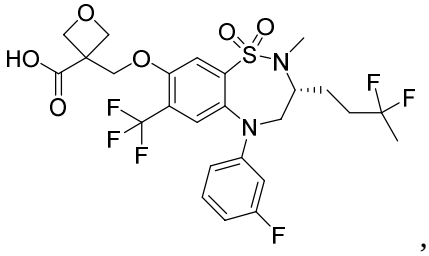
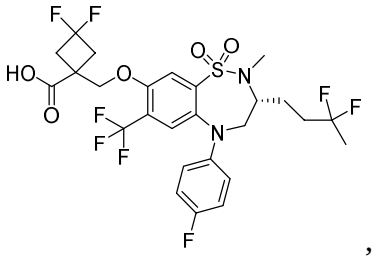
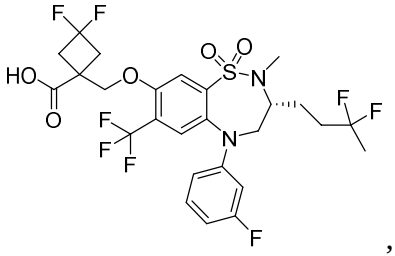
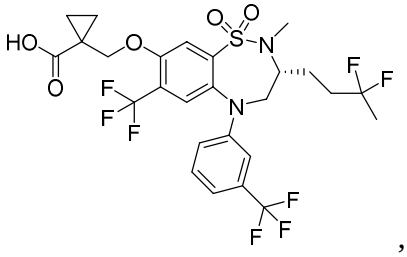
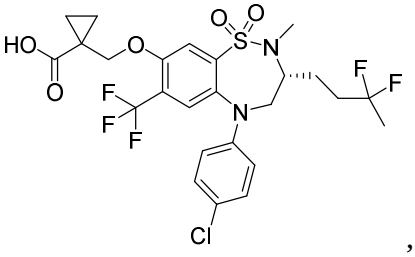
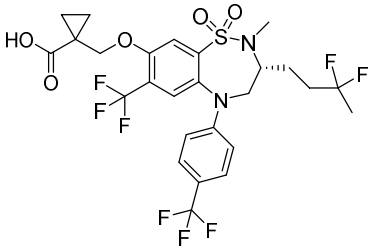
R^5 is 

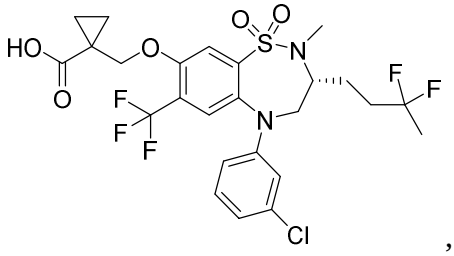
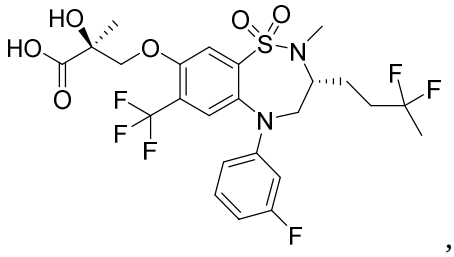
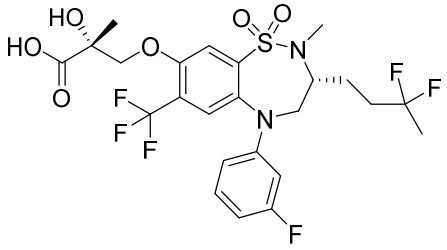
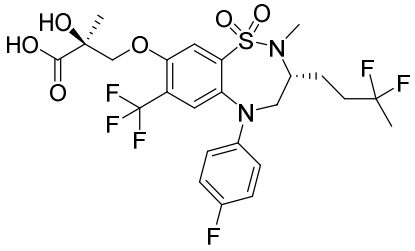
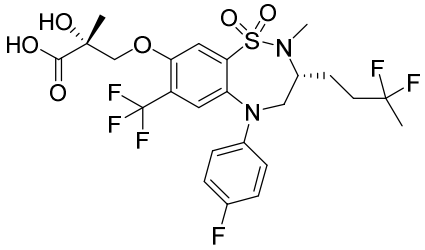
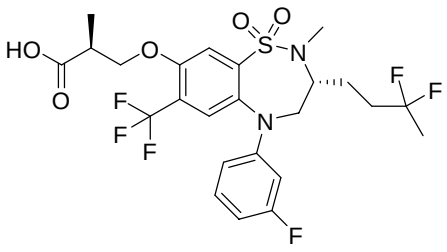
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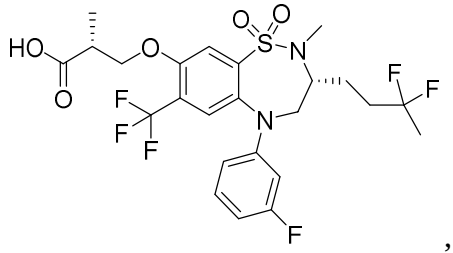
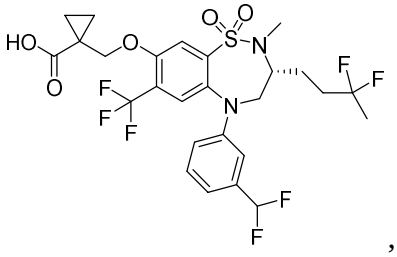
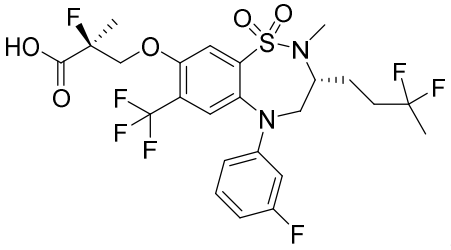
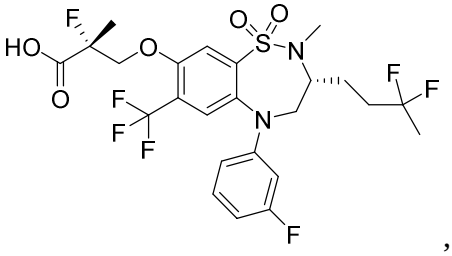
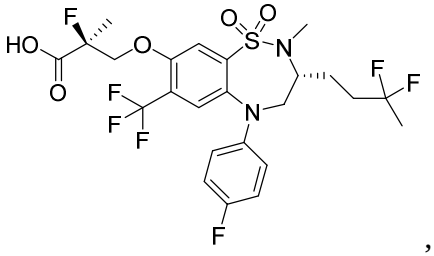
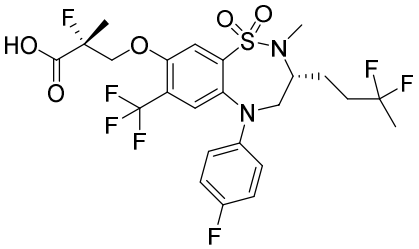
28. A compound, or a pharmaceutically acceptable salt thereof, wherein the compound is:

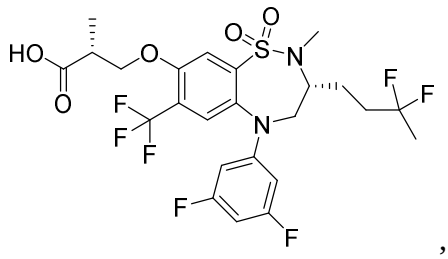
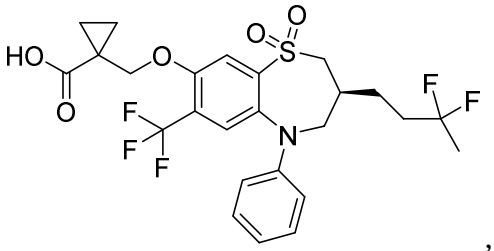
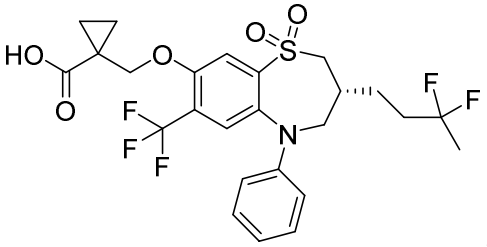
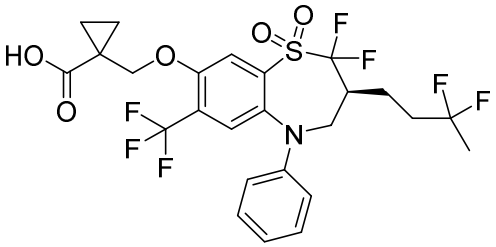
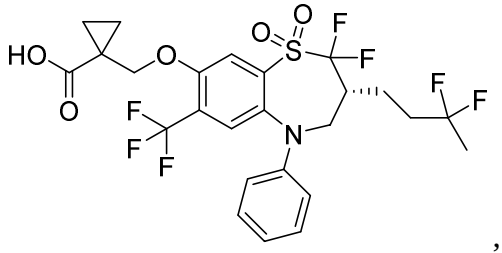
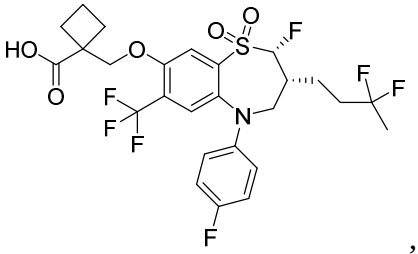
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10c	 ,
10d	 ,
27	 ,
28	 ,

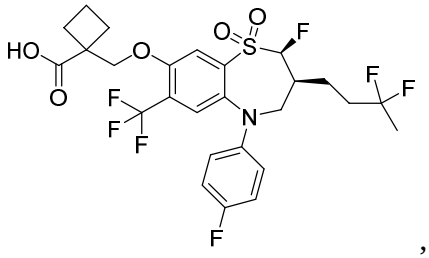
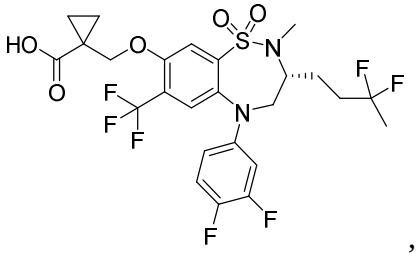
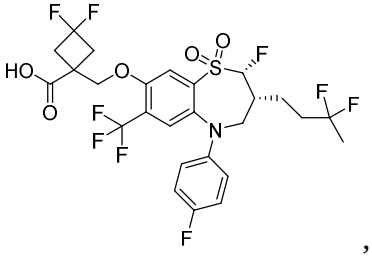
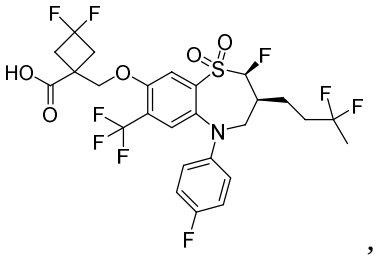
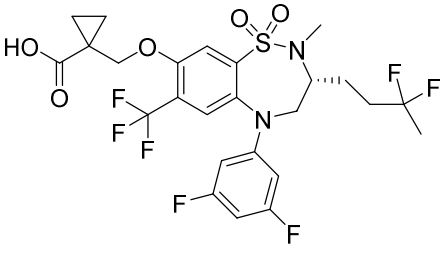
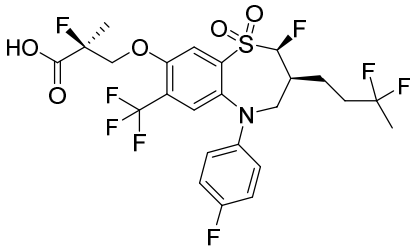
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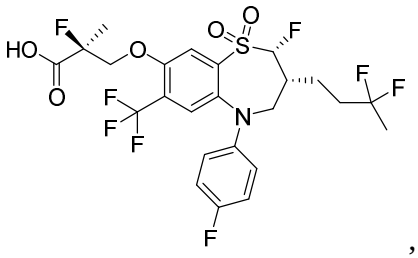
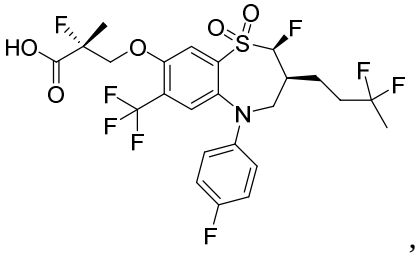
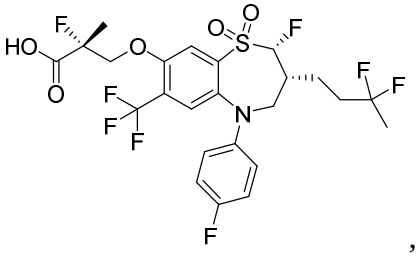
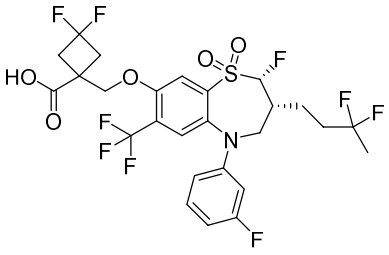
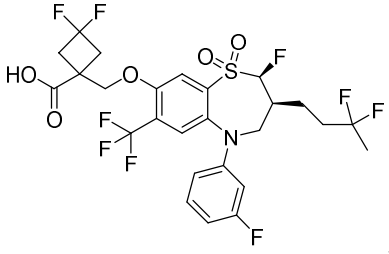
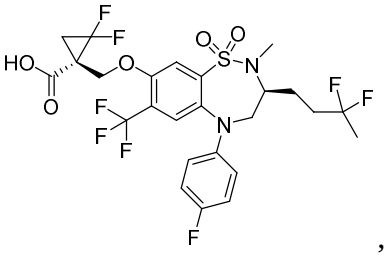
Example	Structure
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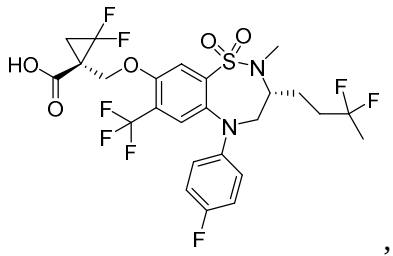
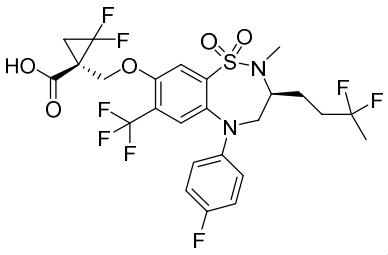
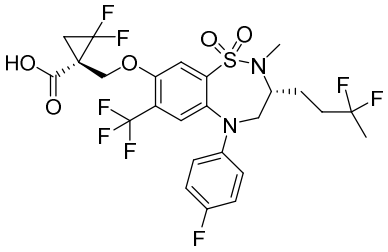
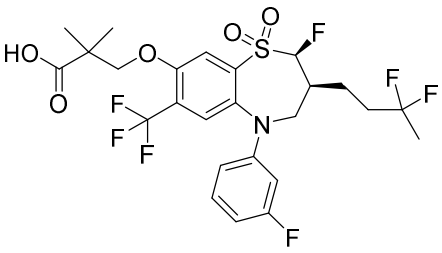
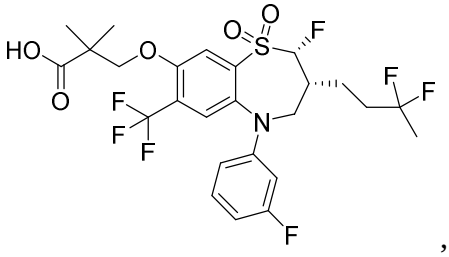
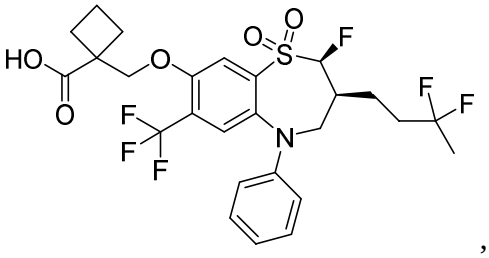
Example	Structure
40	 ,
41a	 ,
41b	 ,
42a	 ,
42b	 ,
43a	 ,

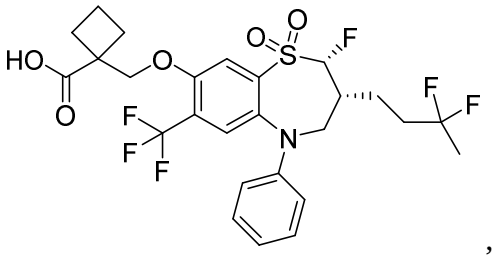
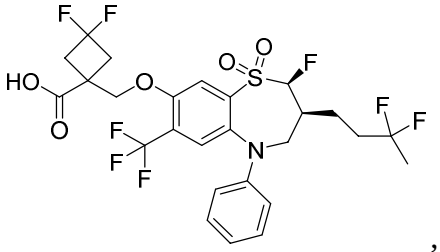
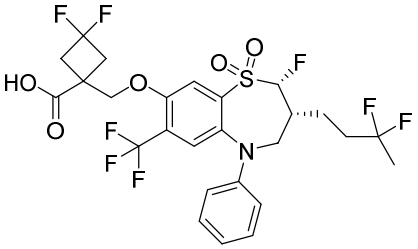
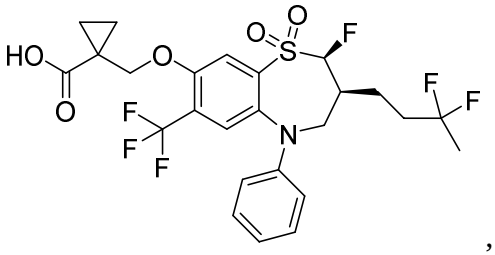
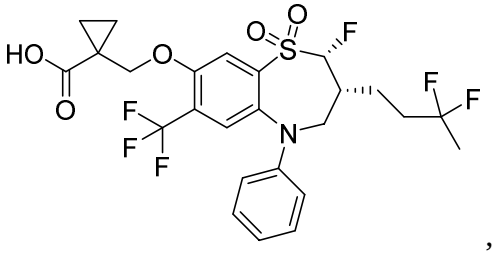
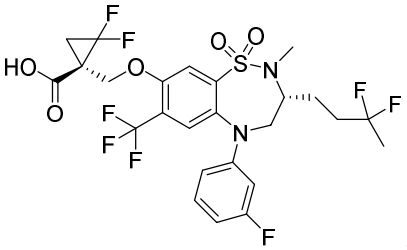
Example	Structure
43b	 ,
44	 ,
45a	 ,
45b	 ,
46a	 ,
46b	 ,

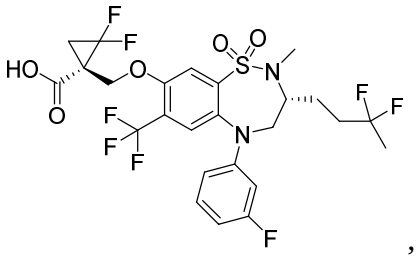
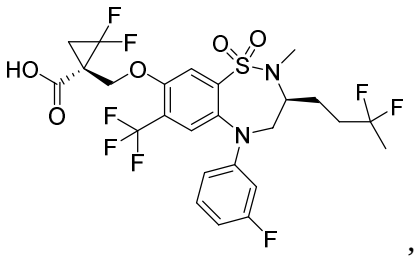
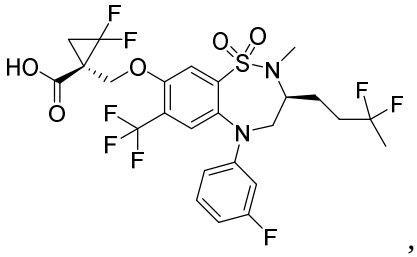
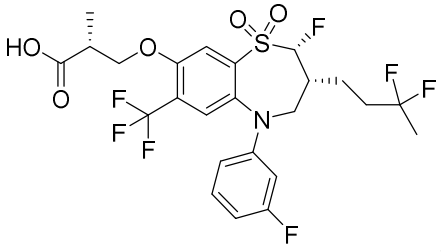
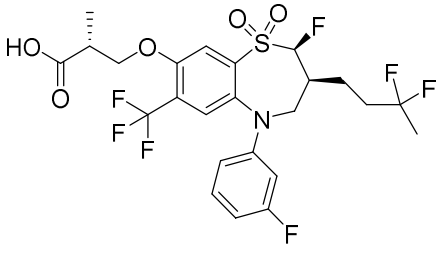
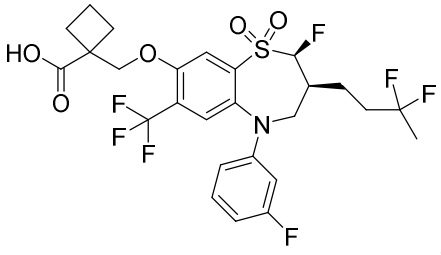
Example	Structure
47	 ,
48a	 ,
48b	 ,
49a	 ,
49b	 ,
50a	 ,

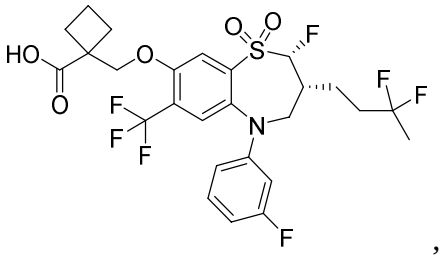
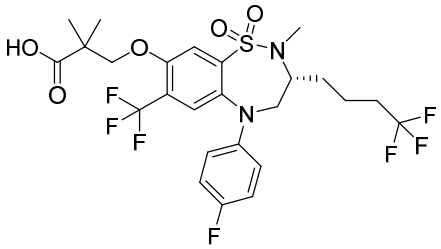
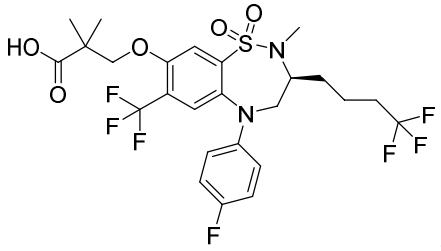
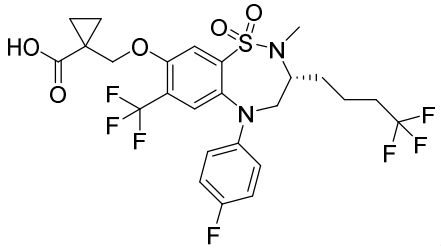
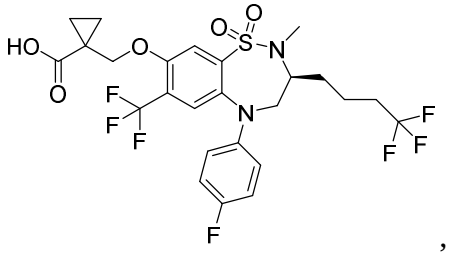
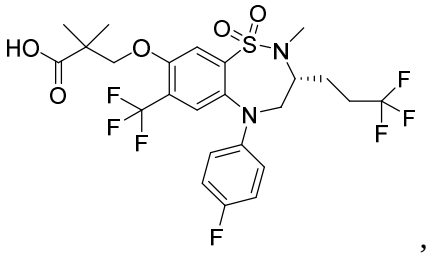
Example	Structure
50b	 ,
60	 ,
61a	 ,
61b	 ,
62	 ,
63a	 ,

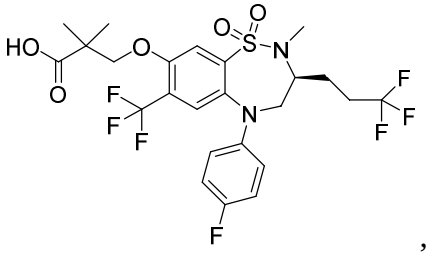
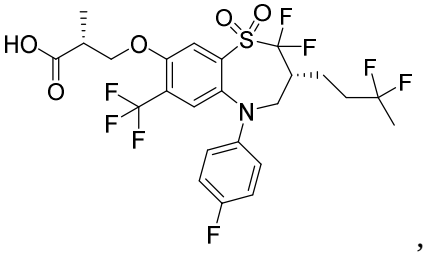
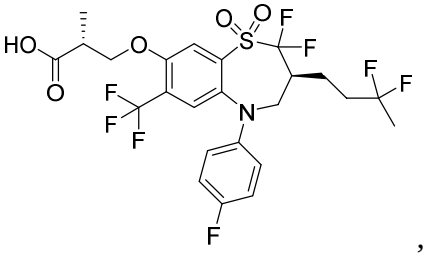
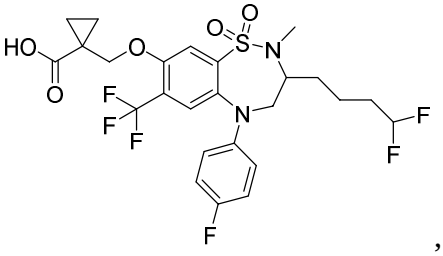
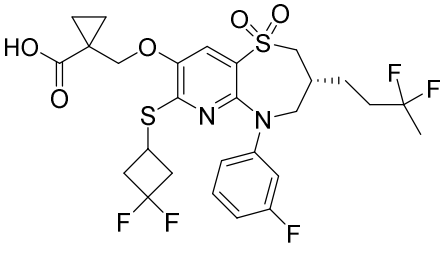
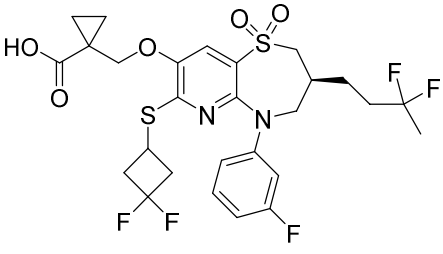
Example	Structure
63b	 ,
63c	 ,
63d	 ,
64a	 ,
64b	 ,
65a	 ,

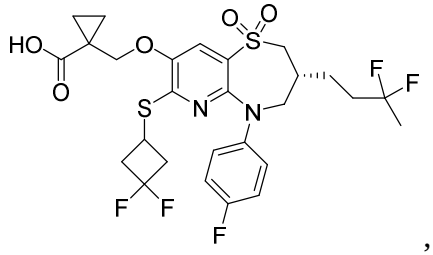
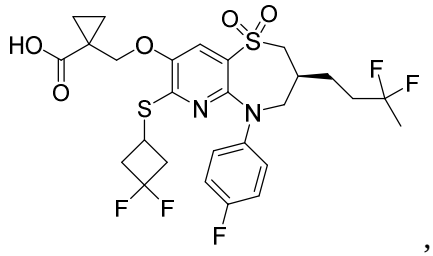
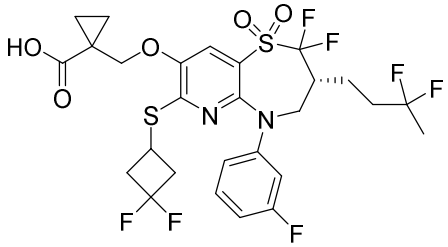
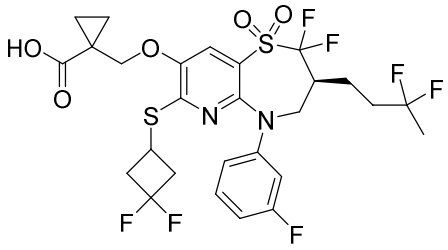
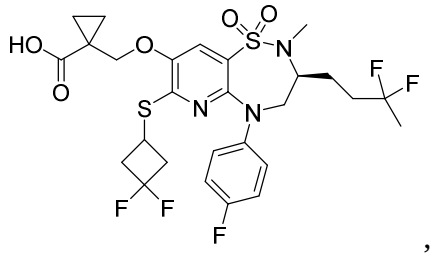
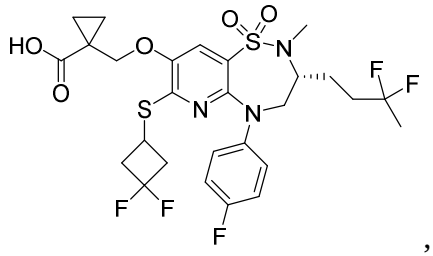
Example	Structure
65b	 ,
65c	 ,
65d	 ,
66a	 ,
66b	 ,
67a	 ,

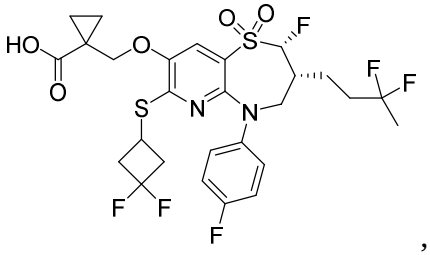
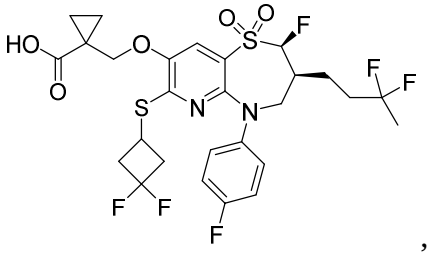
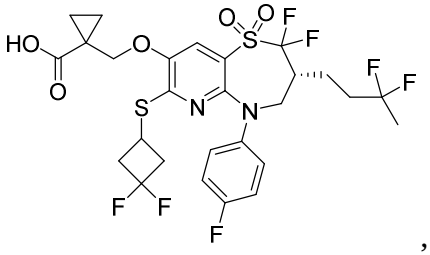
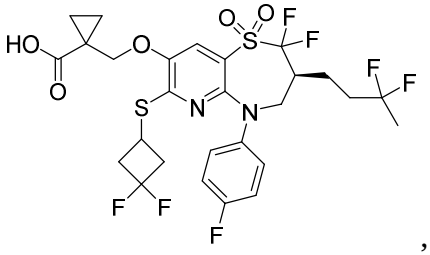
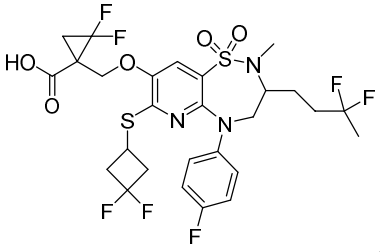
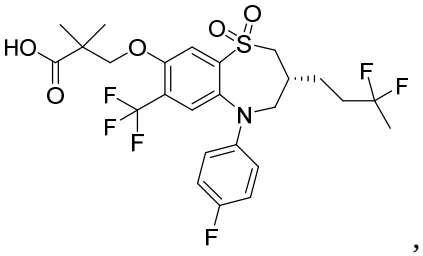
Example	Structure
67b	 ,
68a	 ,
68b	 ,
69a	 ,
69b	 ,
70a	 ,

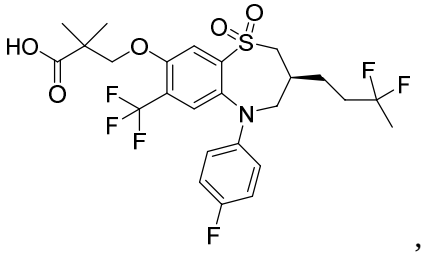
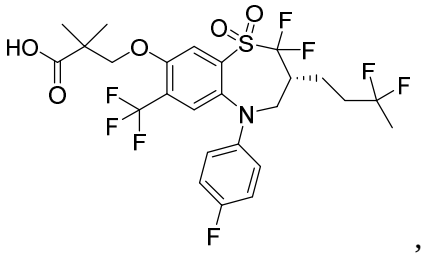
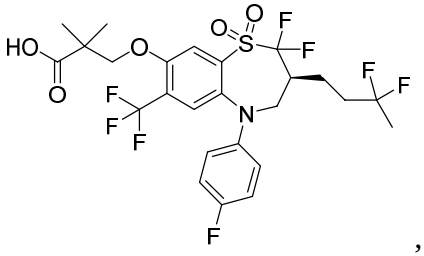
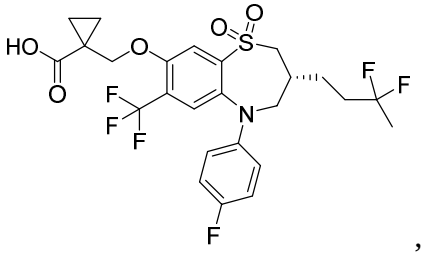
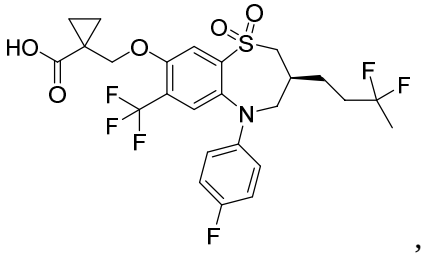
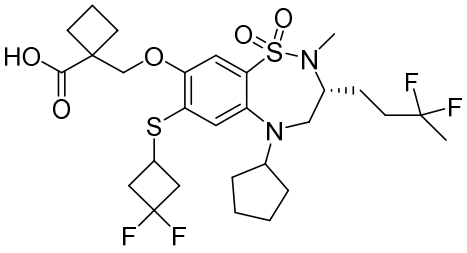
Example	Structure
70b	 ,
70c	 ,
70d	 ,
80a	 ,
80b	 ,
81a	 ,

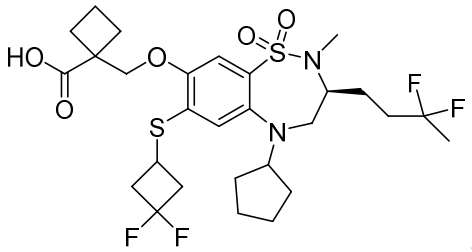
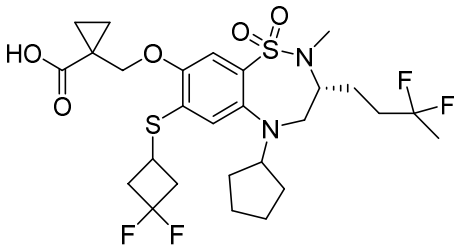
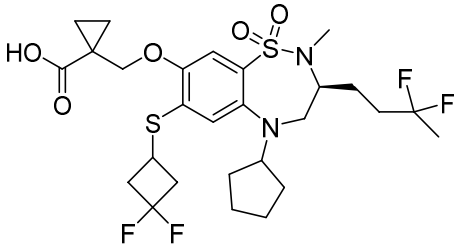
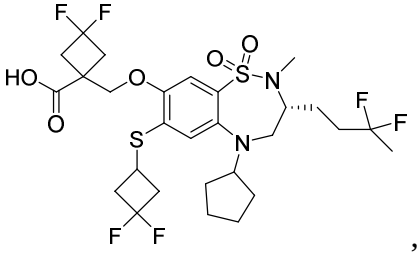
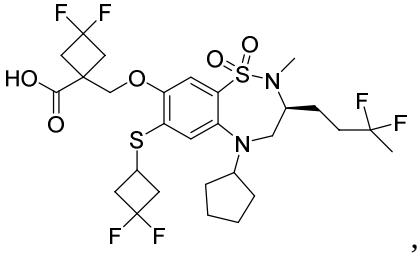
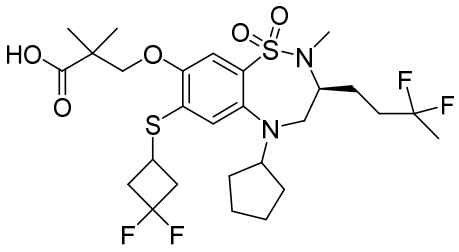
Example	Structure
81b	 ,
82a	 ,
82b	 ,
83a	 ,
83b	 ,
84a	 ,

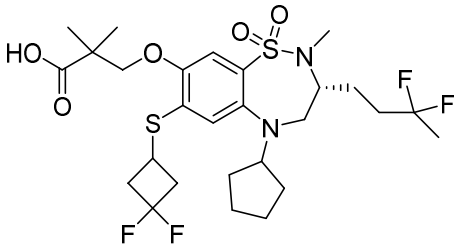
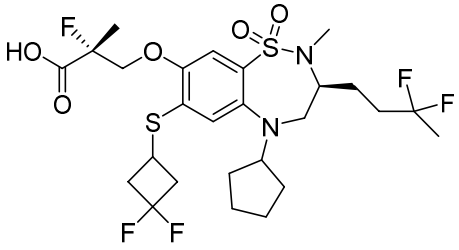
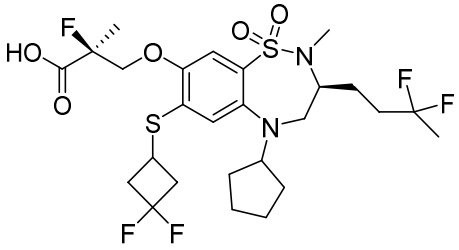
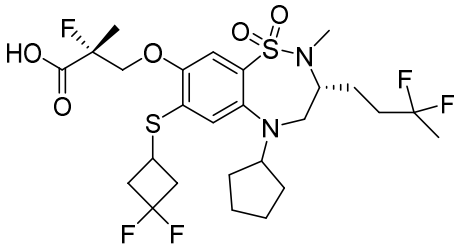
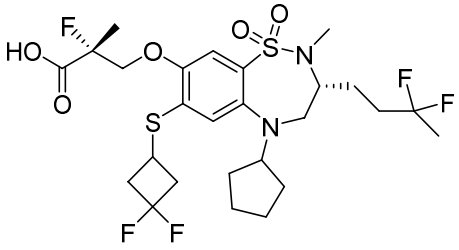
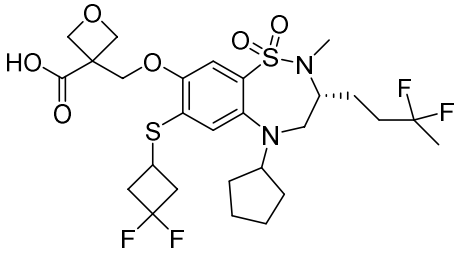
Example	Structure
84b	 ,
85a	 ,
85b	 ,
86	 ,
87a	 ,
87b	 ,

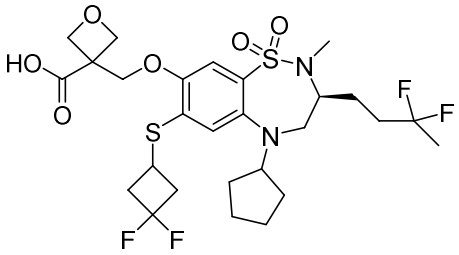
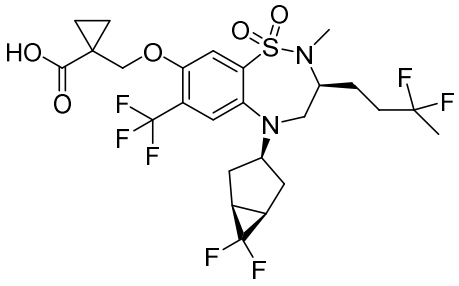
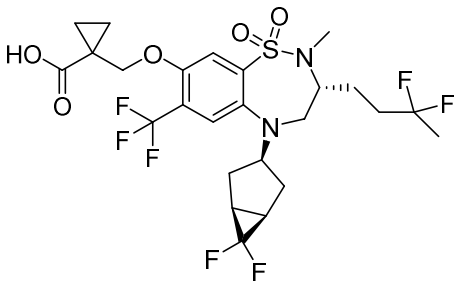
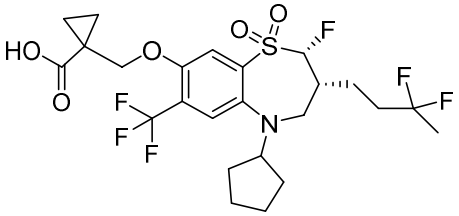
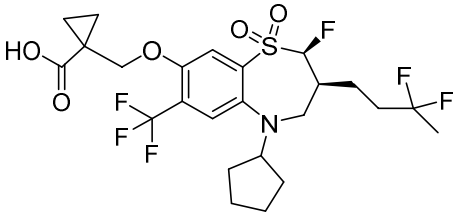
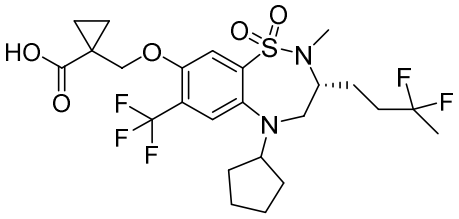
Example	Structure
88a	 ,
88b	 ,
89a	 ,
89b	 ,
90a	 ,
90b	 ,

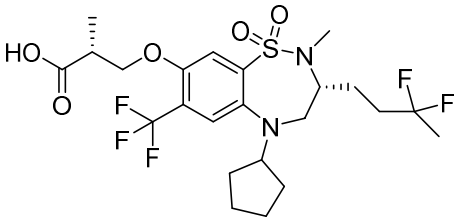
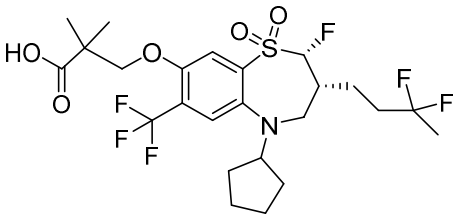
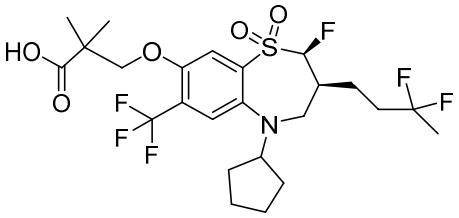
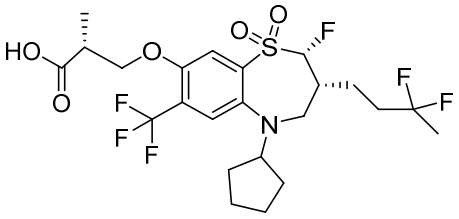
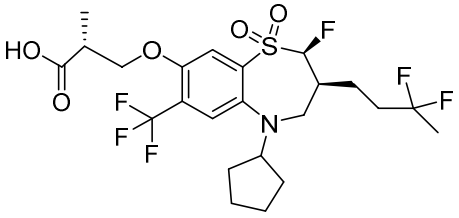
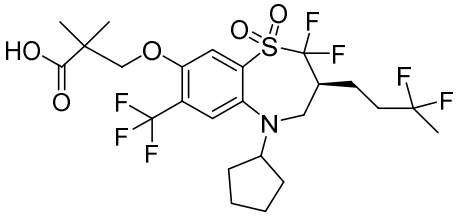
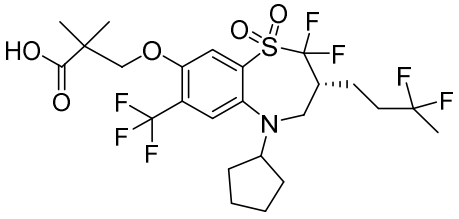
Example	Structure
91a	 ,
91b	 ,
92a	 ,
92b	 ,
93	 ,
94a	 ,

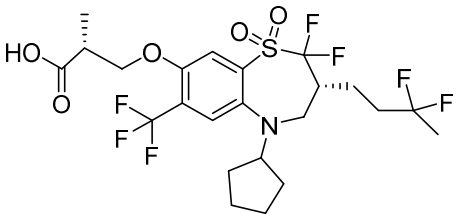
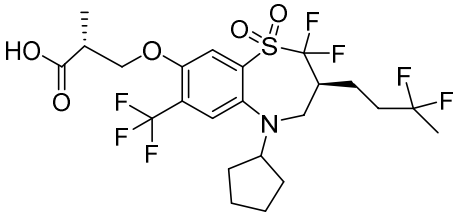
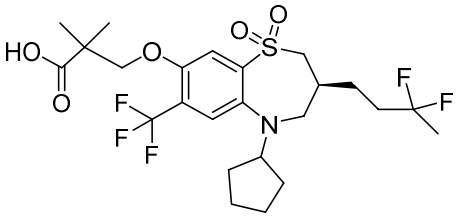
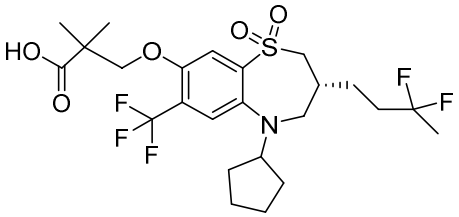
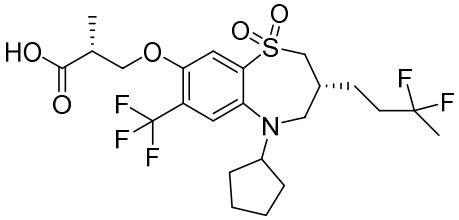
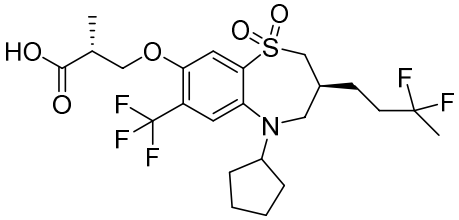
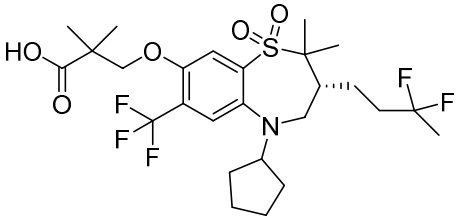
Example	Structure
94b	 ,
95a	 ,
95b	 ,
96a	 ,
96b	 ,
97a	 ,

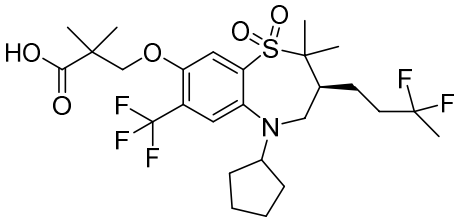
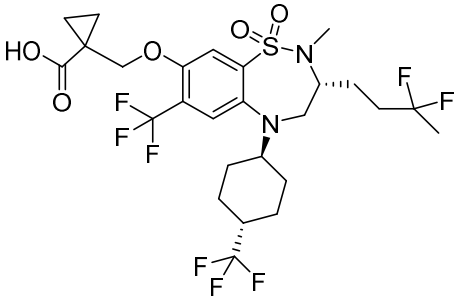
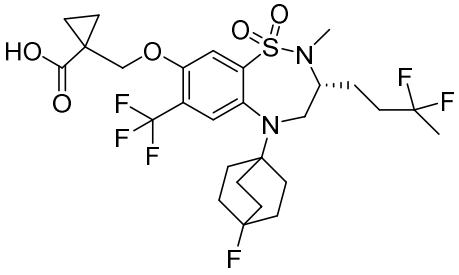
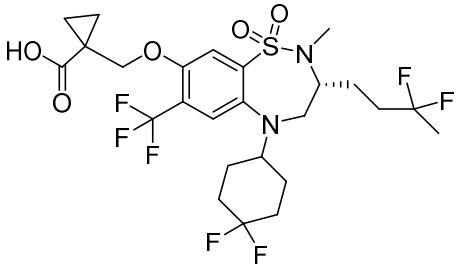
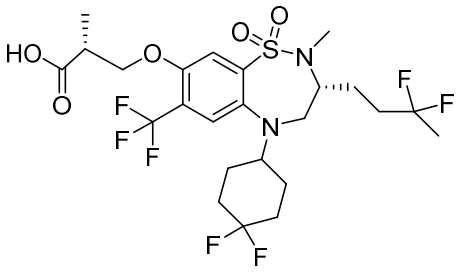
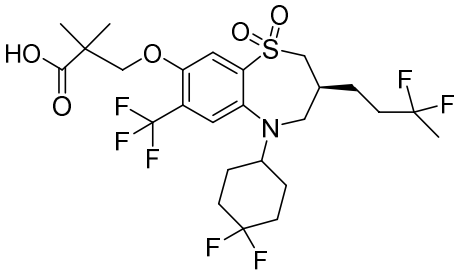
Example	Structure
97b	 ,
98a	 ,
98b	 ,
99a	 ,
99b	 ,
100a	 ,

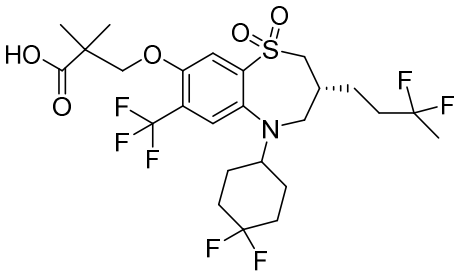
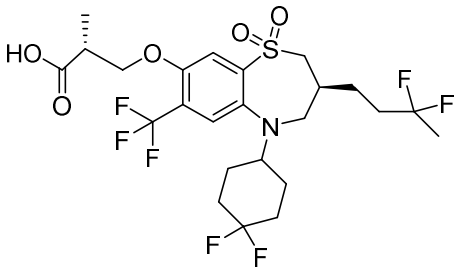
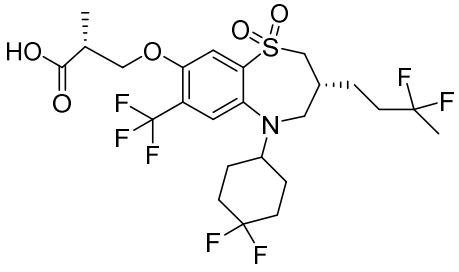
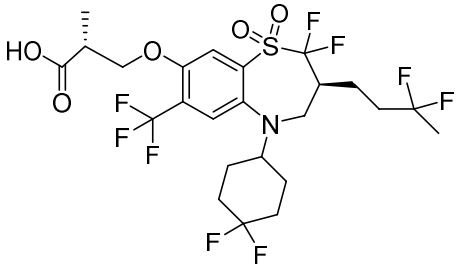
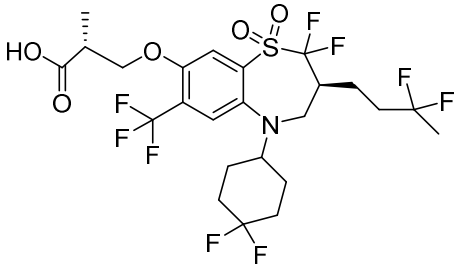
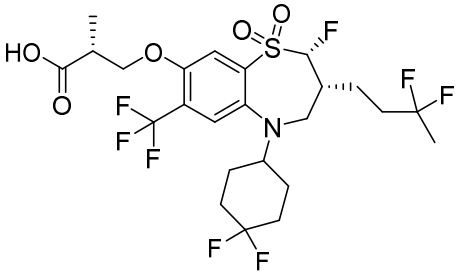
Example	Structure
100b	 ,
101a	 ,
101b	 ,
101c	 ,
101d	 ,
102a	 ,

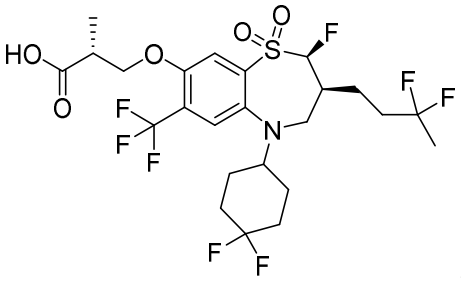
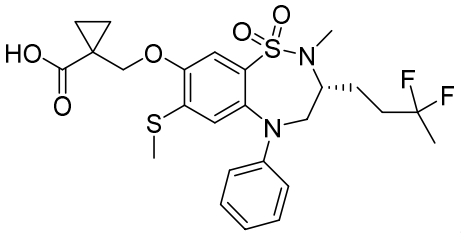
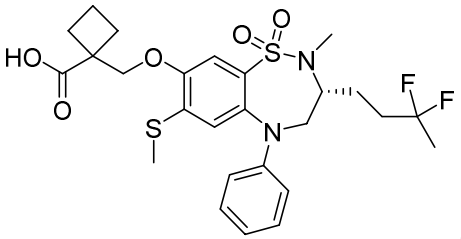
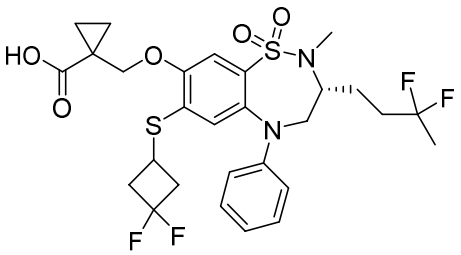
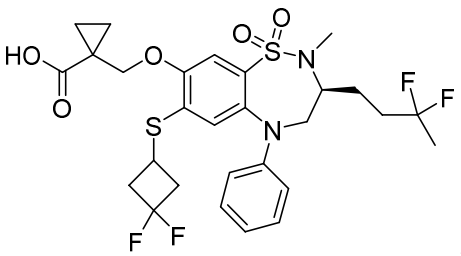
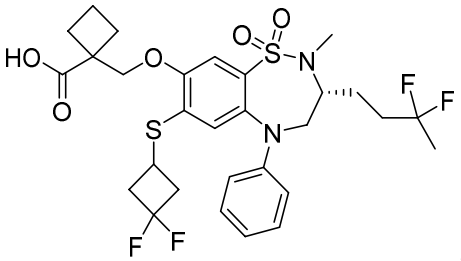
Example	Structure
102b	 ,
103a	 ,
103b	 ,
104a	 ,
104b	 ,
105	 ,

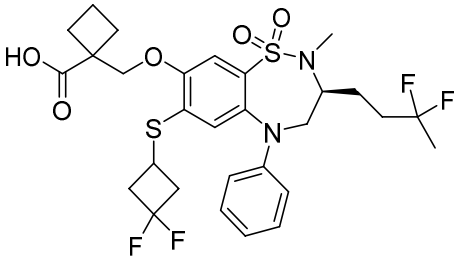
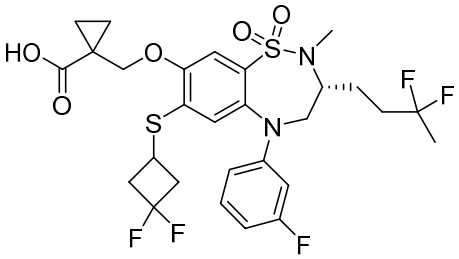
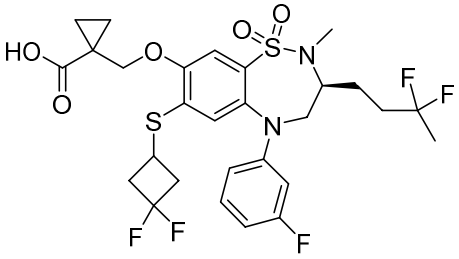
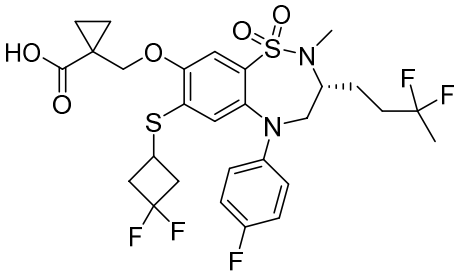
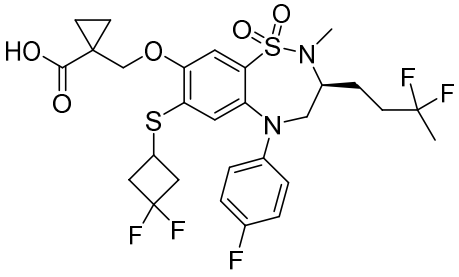
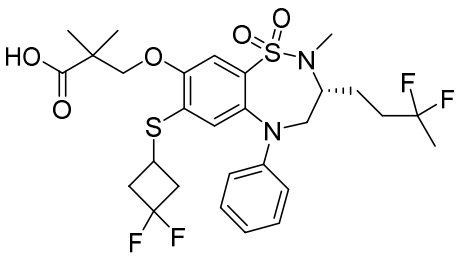
Example	Structure
106	 ,
107a	 ,
107b	 ,
108a	 ,
108b	 ,
109a	 ,
109b	 ,

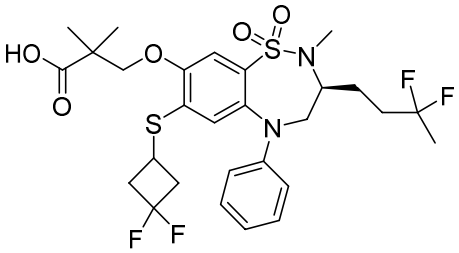
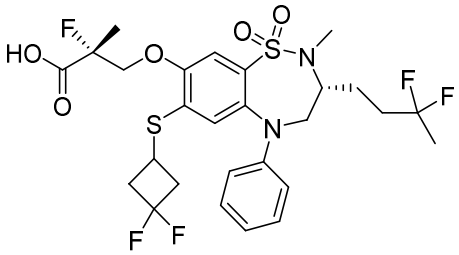
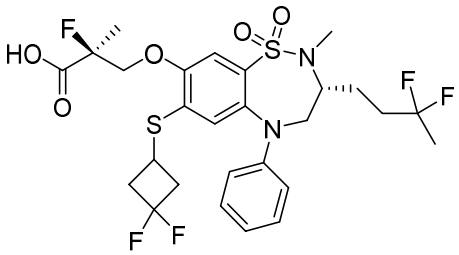
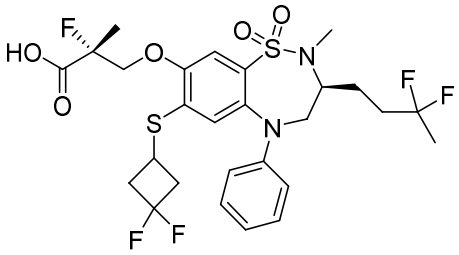
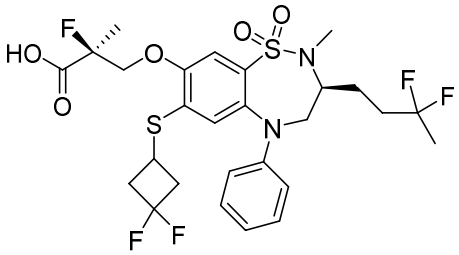
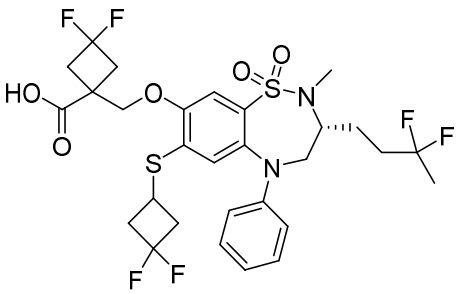
Example	Structure
110a	 ,
110b	 ,
111a	 ,
111b	 ,
112a	 ,
112b	 ,
113a	 ,

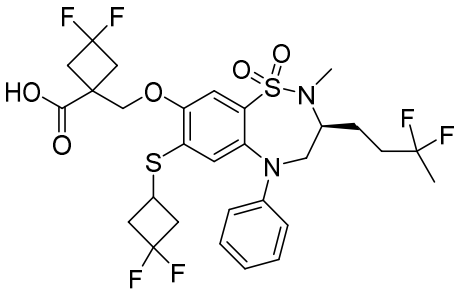
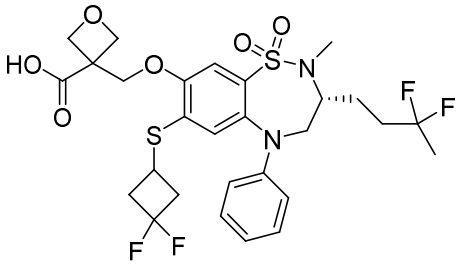
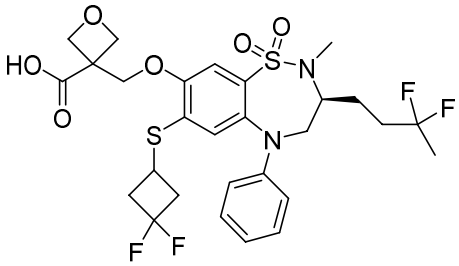
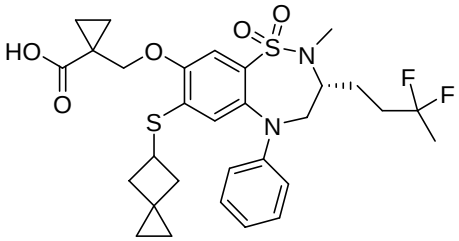
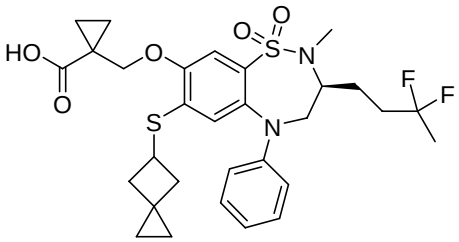
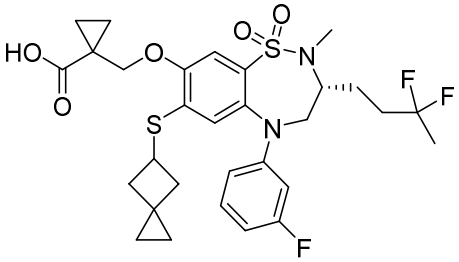
Example	Structure
113b	 ,
114	 ,
115	 ,
116	 ,
117	 ,
118a	 ,

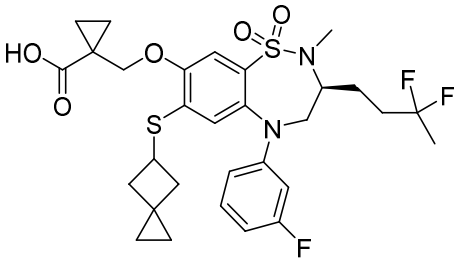
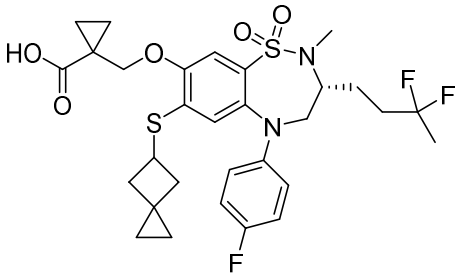
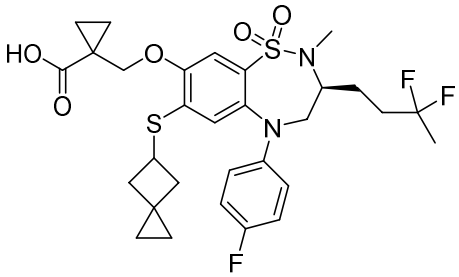
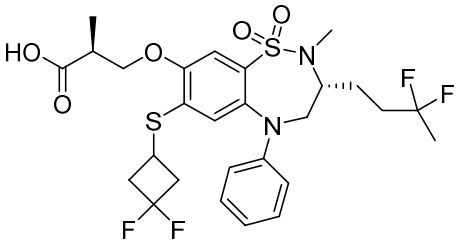
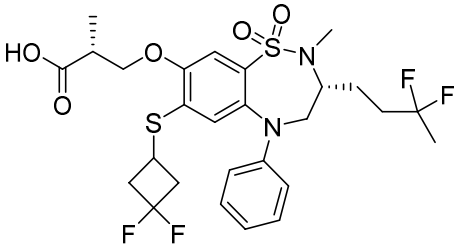
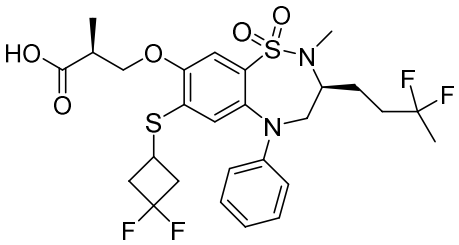
Example	Structure
118b	 ,
119a	 ,
119b	 ,
120a	 ,
120b	 ,
121a	 ,

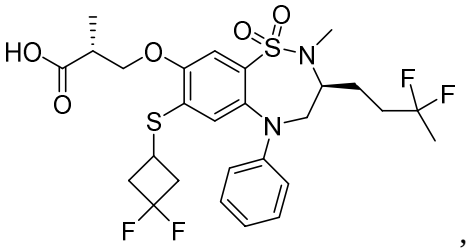
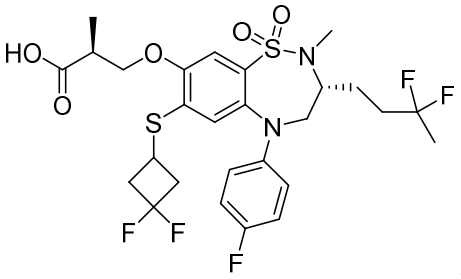
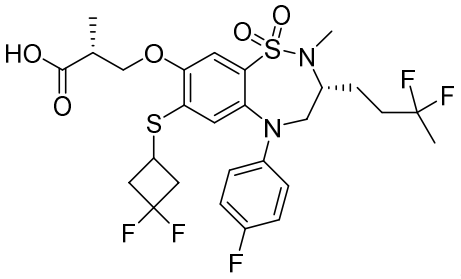
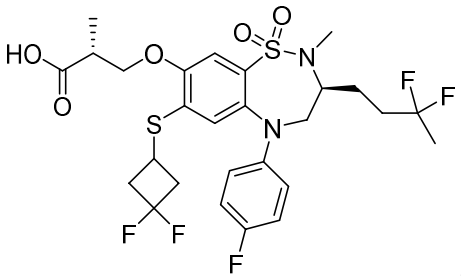
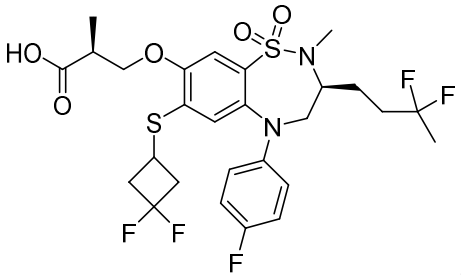
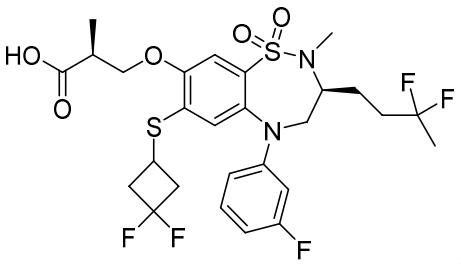
Example	Structure
121b	 ,
122	 ,
123	 ,
124a	 ,
124b	 ,
125a	 ,

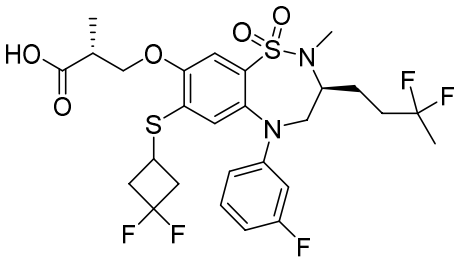
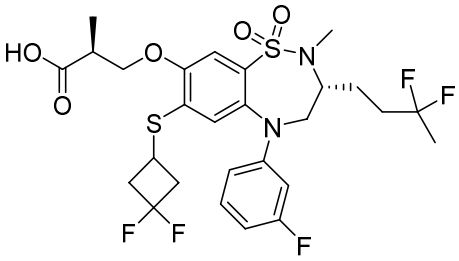
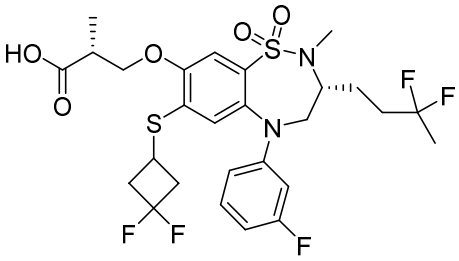
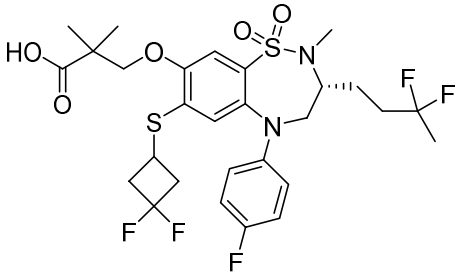
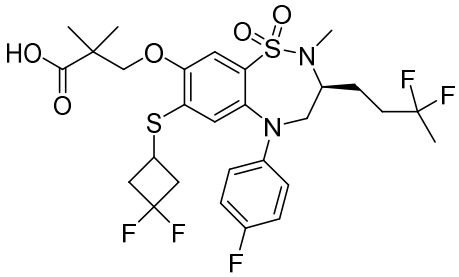
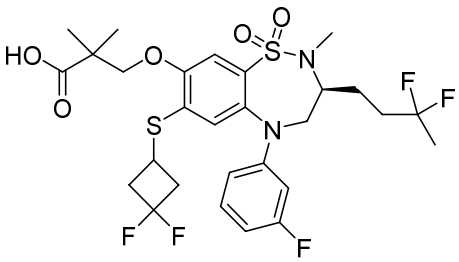
Example	Structure
125b	 ,
126a	 ,
126b	 ,
127a	 ,
127b	 ,
128a	 ,

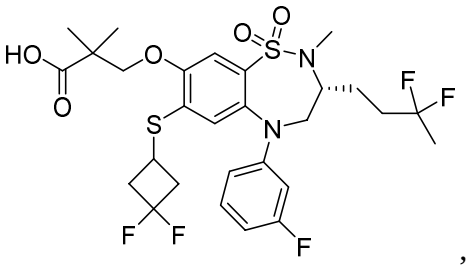
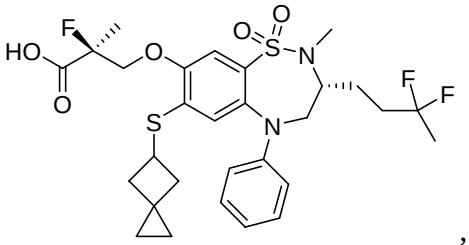
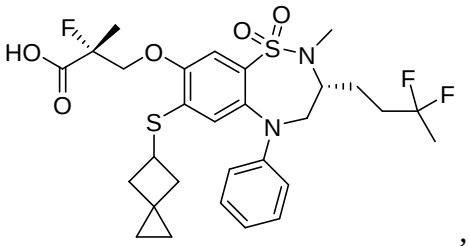
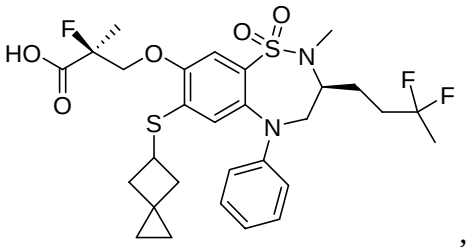
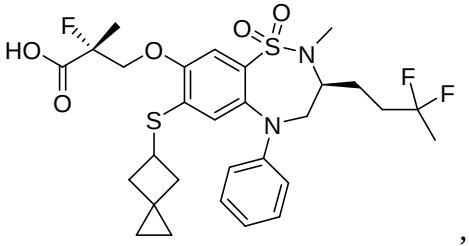
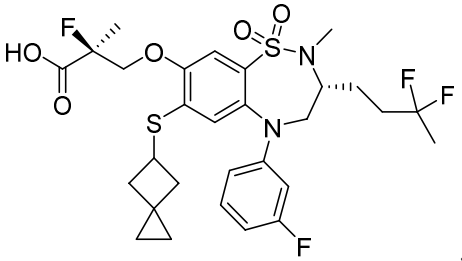
Example	Structure
128b	 ,
129a	 ,
129b	 ,
129c	 ,
129d	 ,
130a	 ,

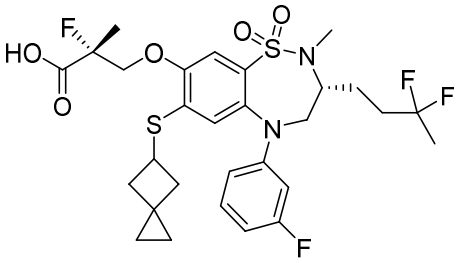
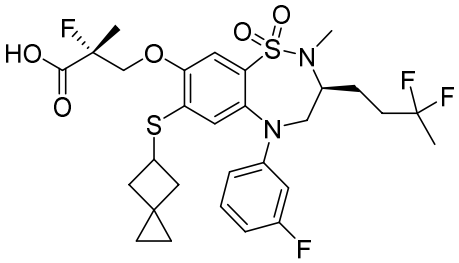
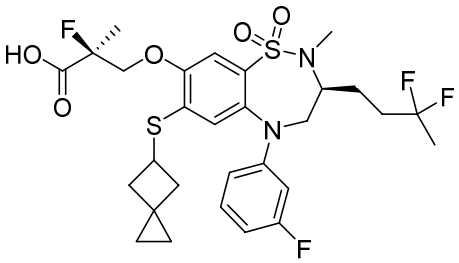
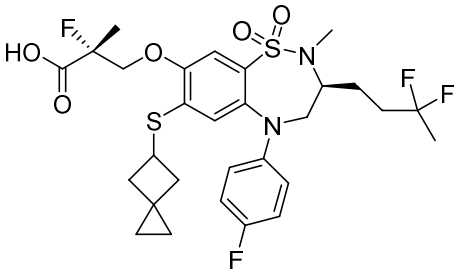
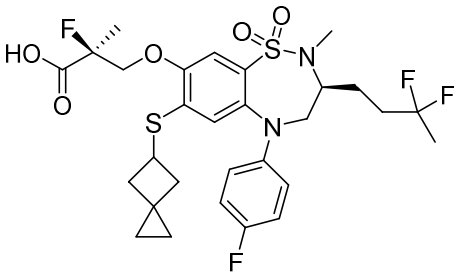
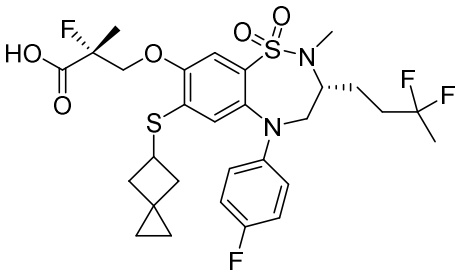
Example	Structure
130b	 ,
131a	 ,
131b	 ,
132a	 ,
132b	 ,
133a	 ,

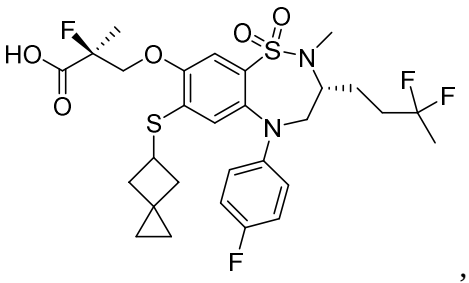
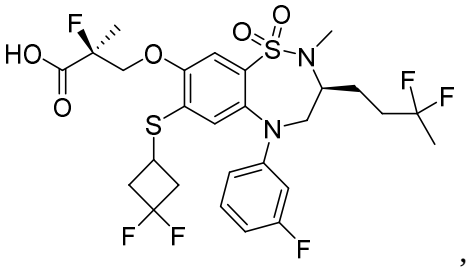
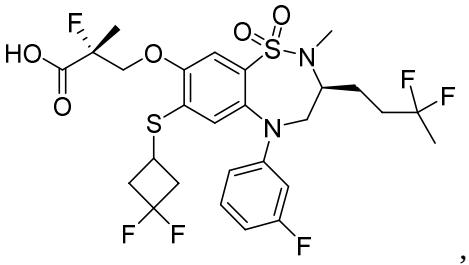
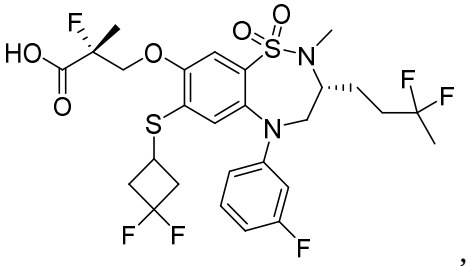
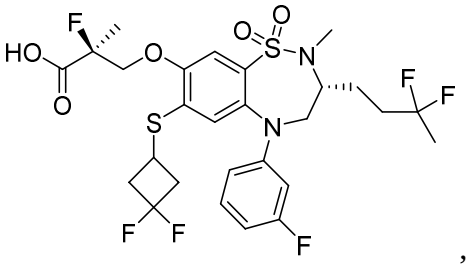
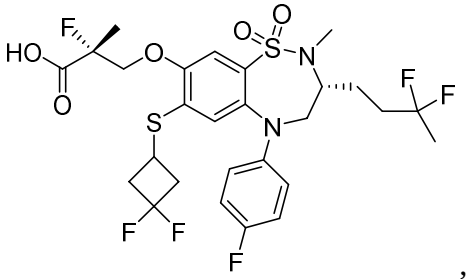
Example	Structure
133b	 ,
134a	 ,
134b	 ,
135a	 ,
135b	 ,
135c	 ,

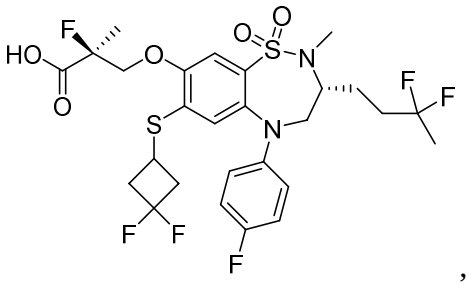
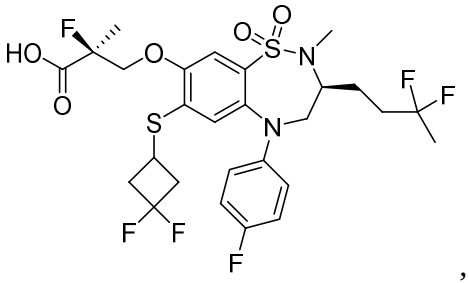
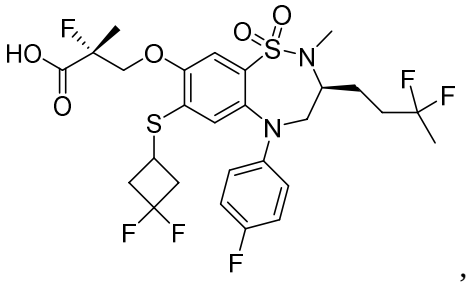
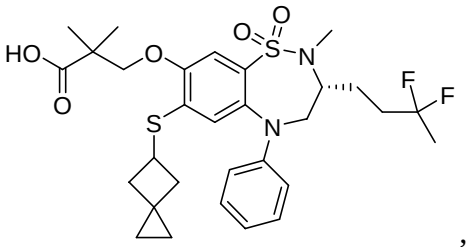
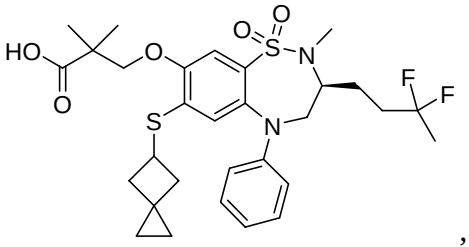
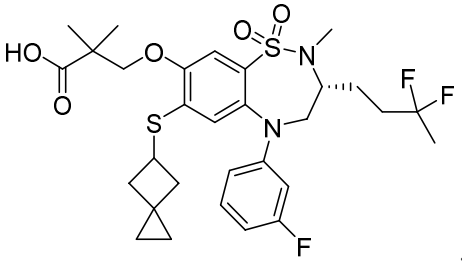
Example	Structure
135d	 ,
136a	 ,
136b	 ,
136c	 ,
136d	 ,
137a	 ,

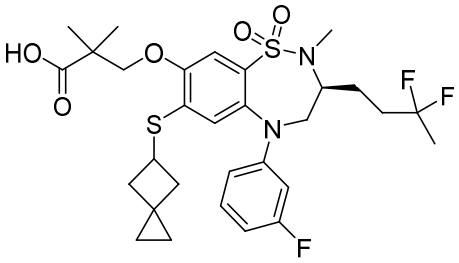
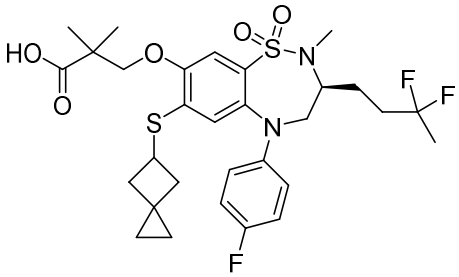
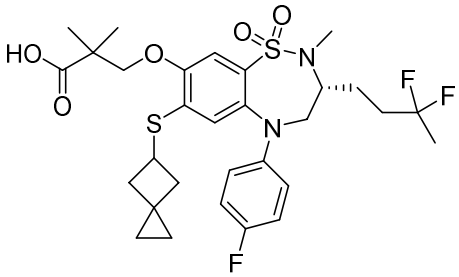
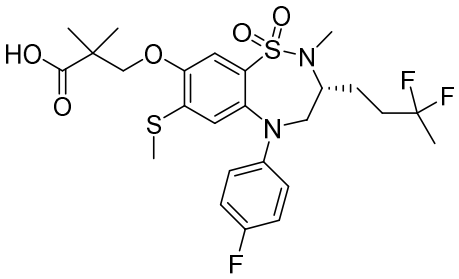
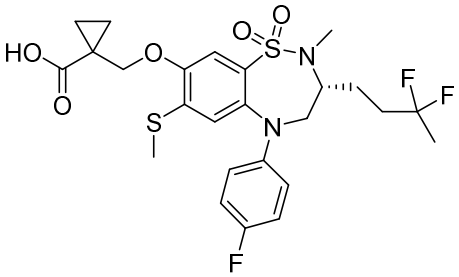
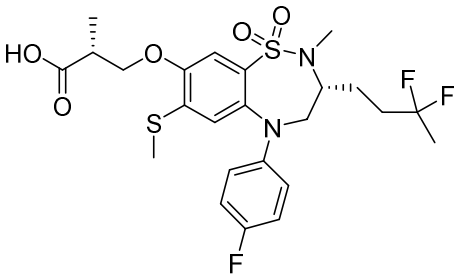
Example	Structure
137b	 ,
137c	 ,
137d	 ,
138a	 ,
138b	 ,
139a	 ,

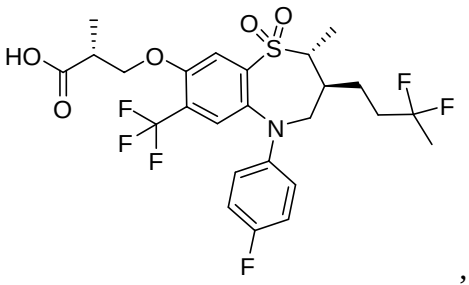
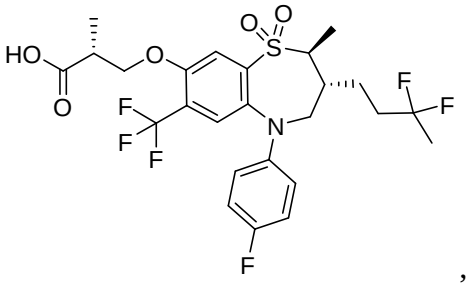
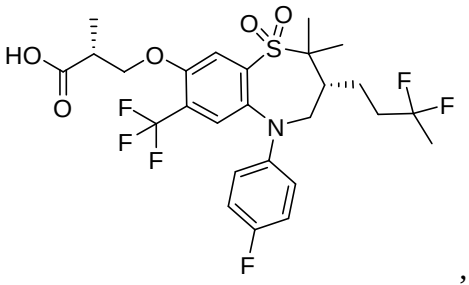
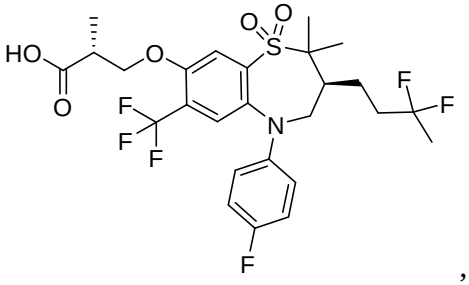
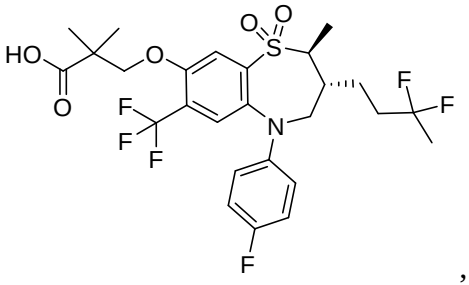
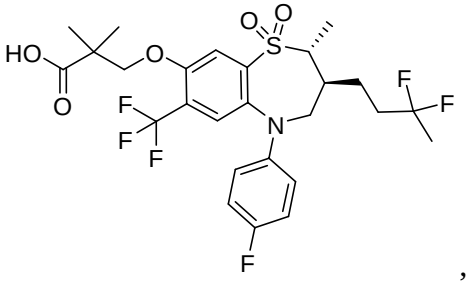
Example	Structure
139b	 ,
140a	 ,
140b	 ,
140c	 ,
140d	 ,
141a	 ,

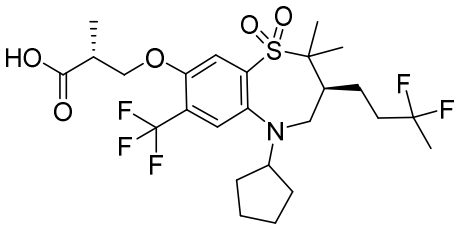
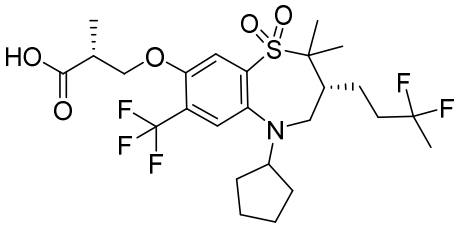
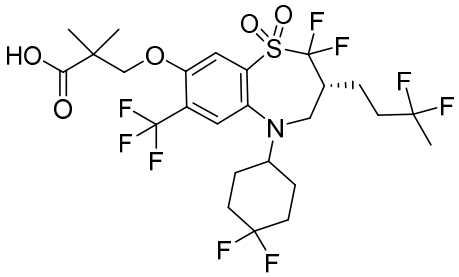
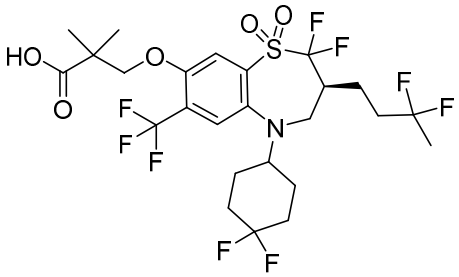
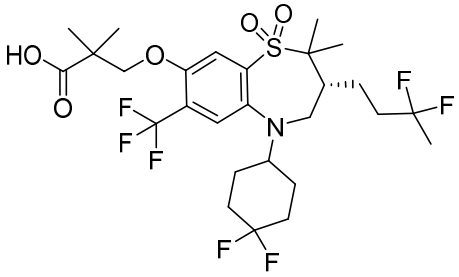
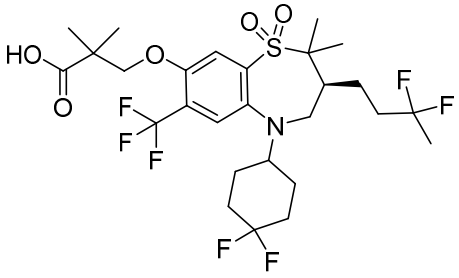
Example	Structure
141b	 ,
141c	 ,
141d	 ,
142a	 ,
142b	 ,
142c	 ,

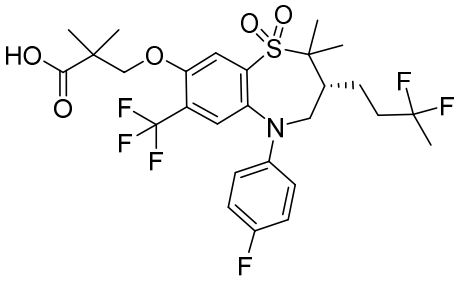
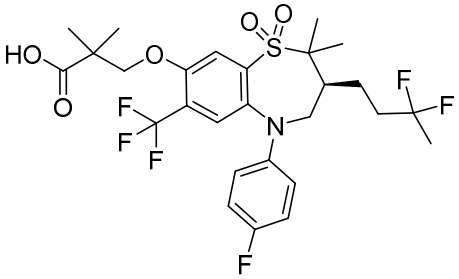
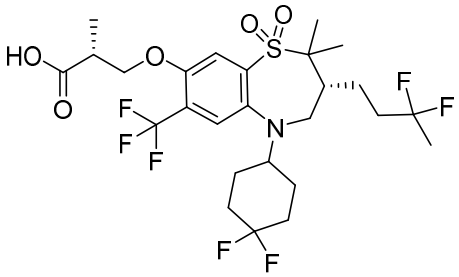
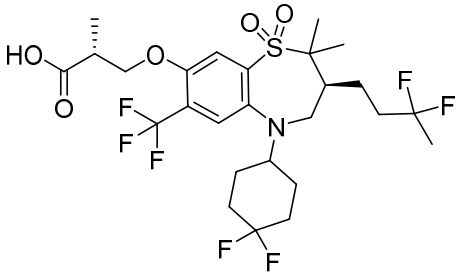
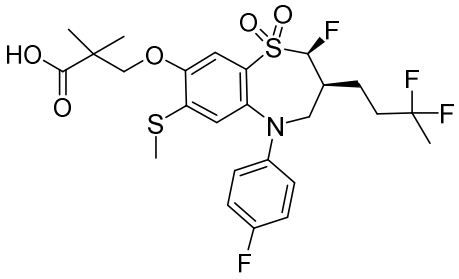
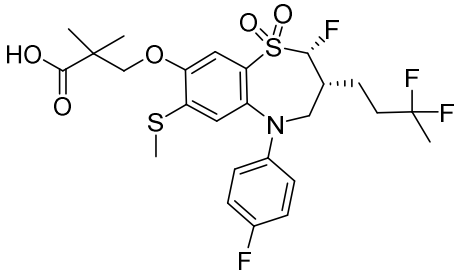
Example	Structure
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143b	 ,
143c	 ,
143d	 ,
144a	 ,

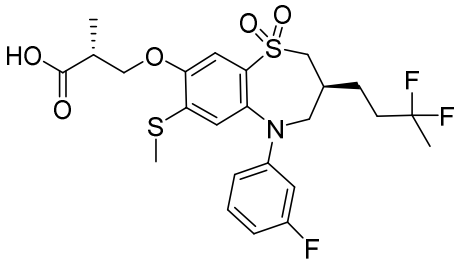
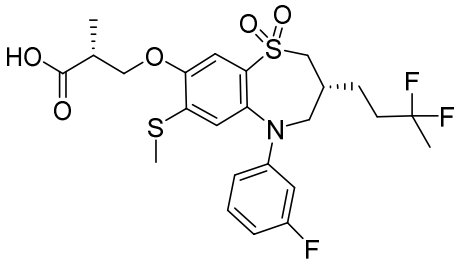
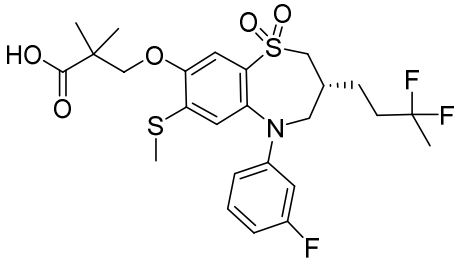
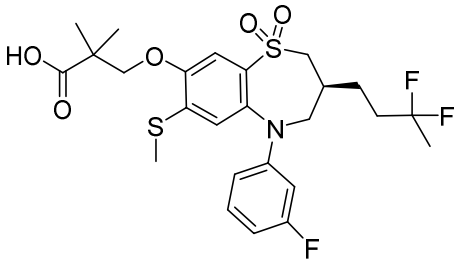
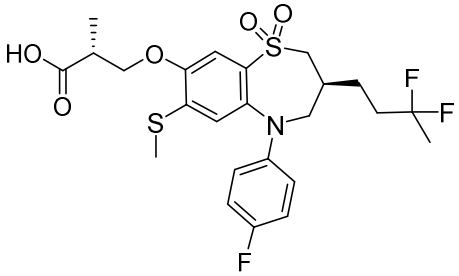
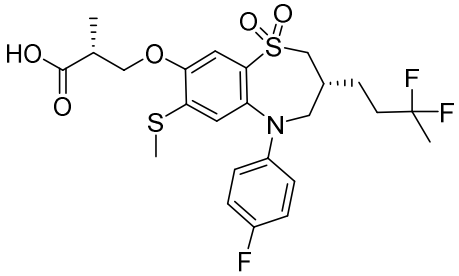
Example	Structure
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144c	 ,
144d	 ,
145a	 ,
145b	 ,
146a	 ,

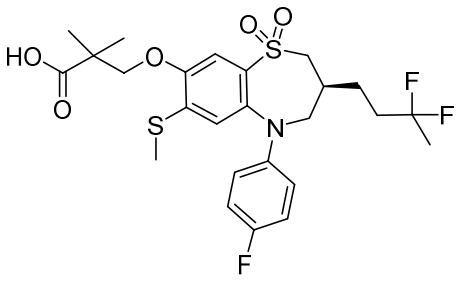
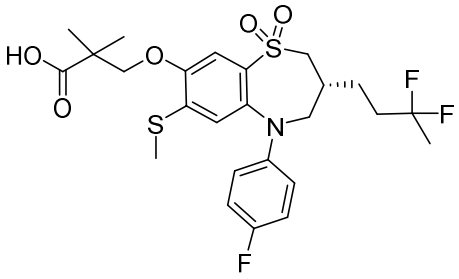
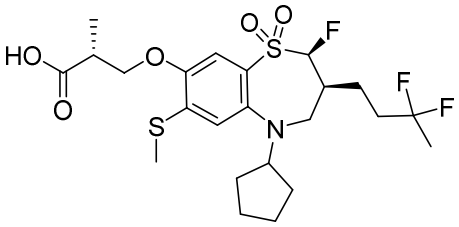
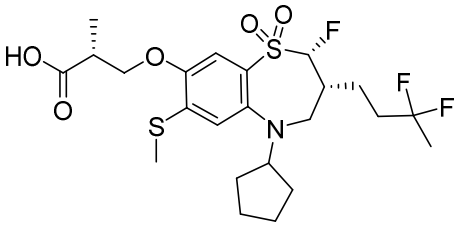
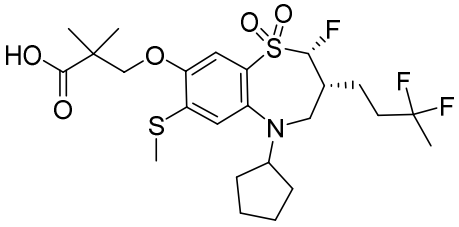
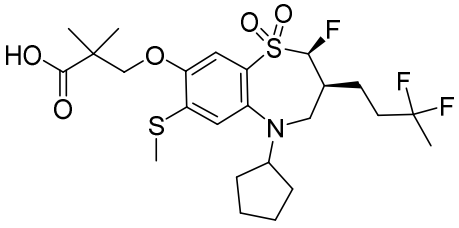
Example	Structure
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147a	 ,
147b	 ,
148	 ,
149	 ,
150	 ,

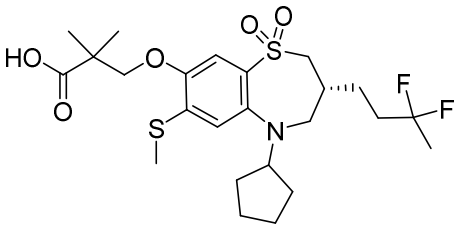
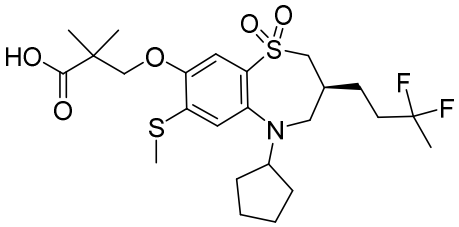
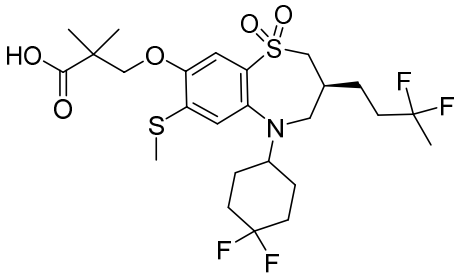
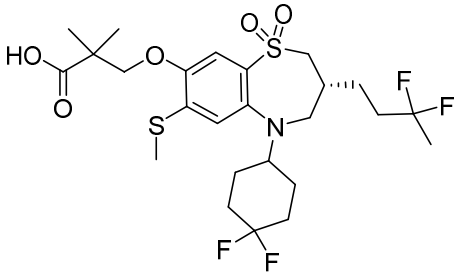
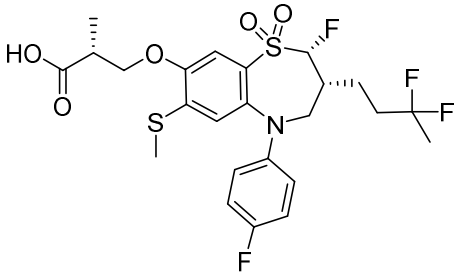
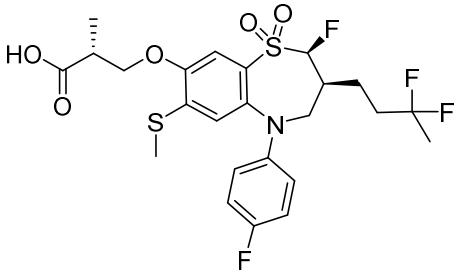
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169	 ,

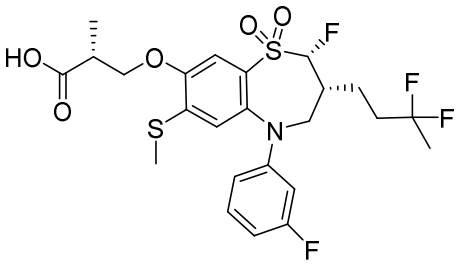
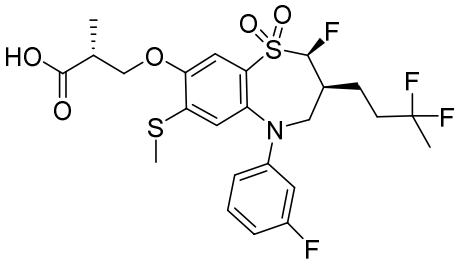
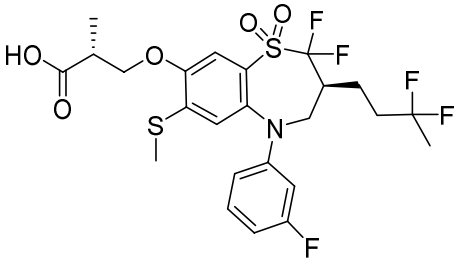
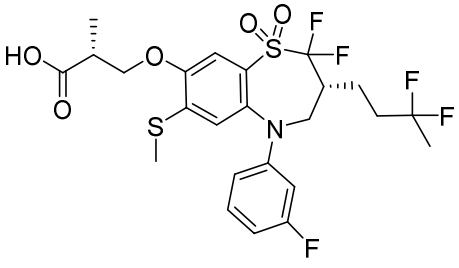
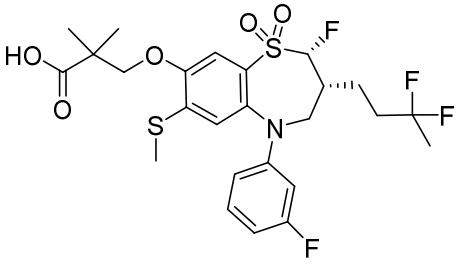
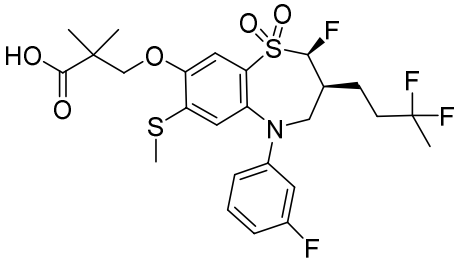
Example	Structure
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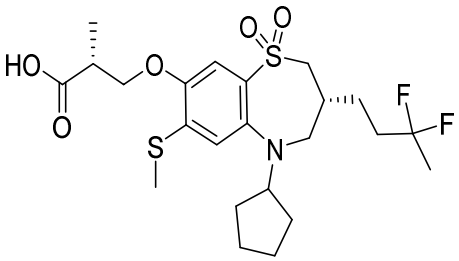
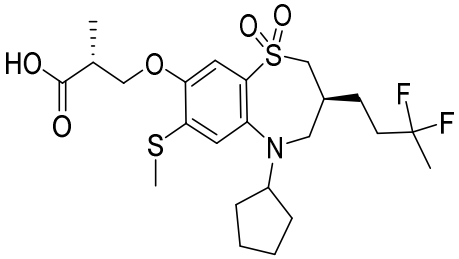
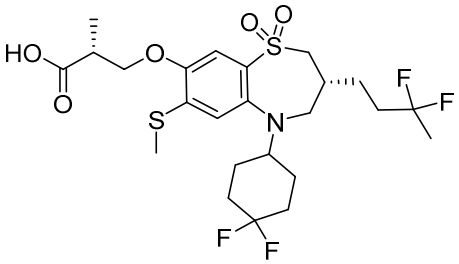
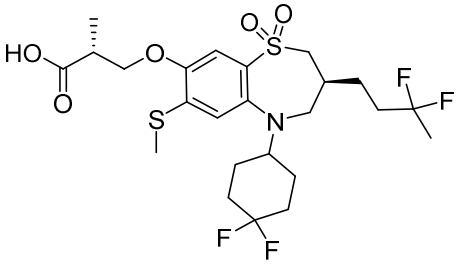
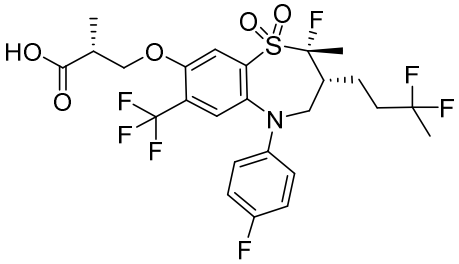
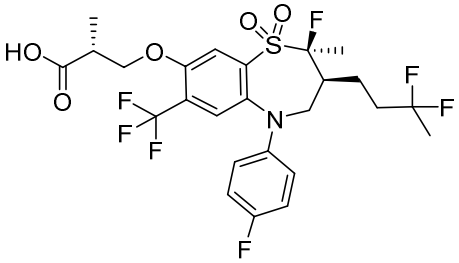
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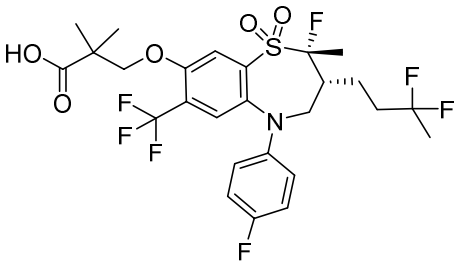
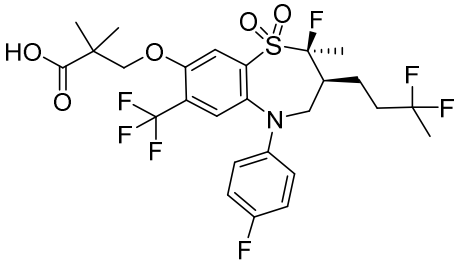
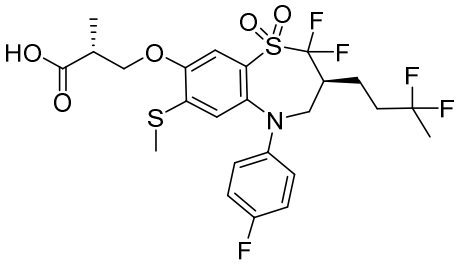
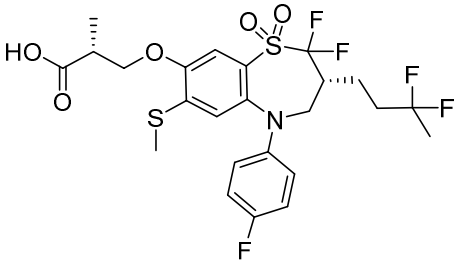
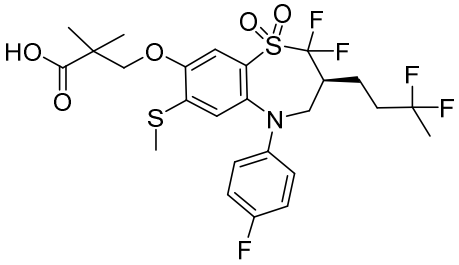
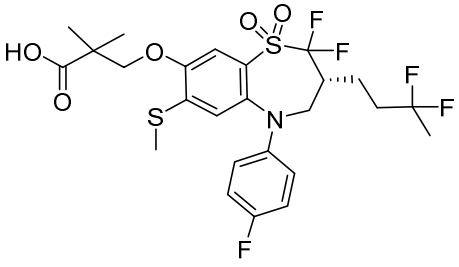
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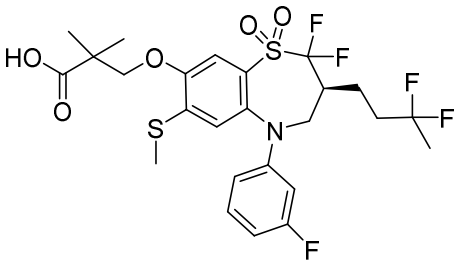
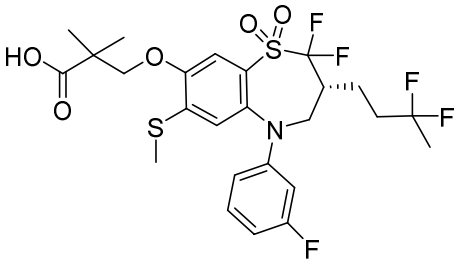
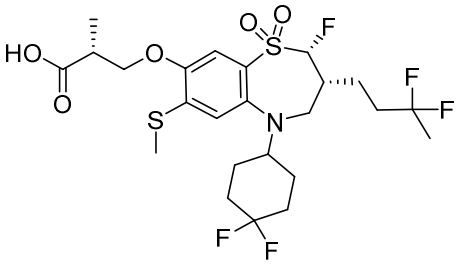
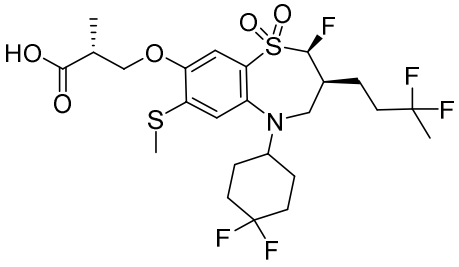
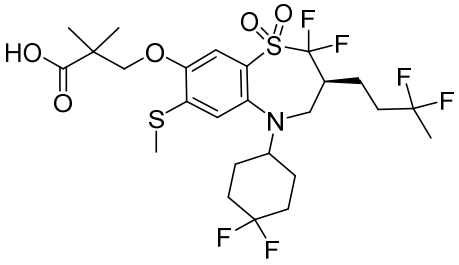
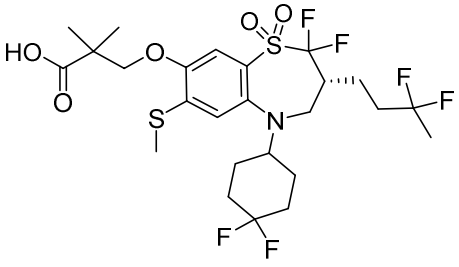
Example	Structure
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193	 ,

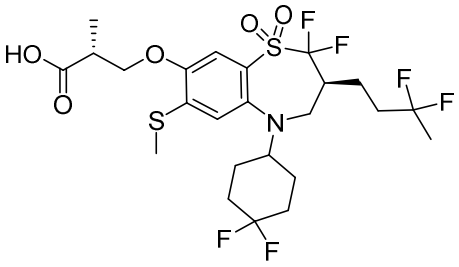
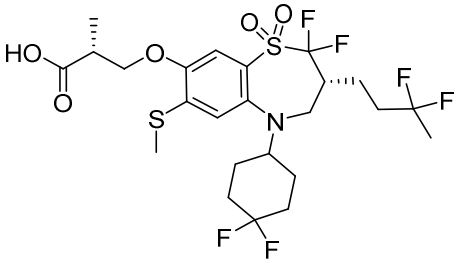
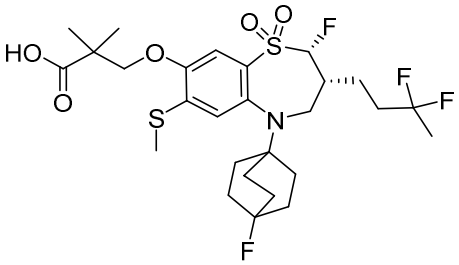
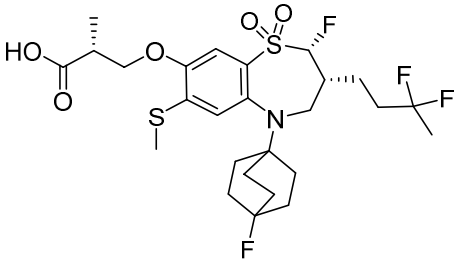
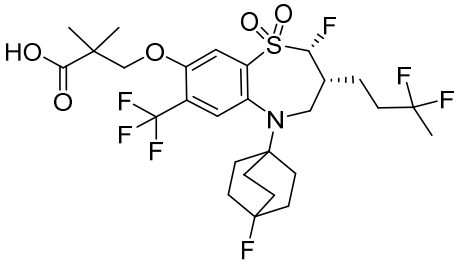
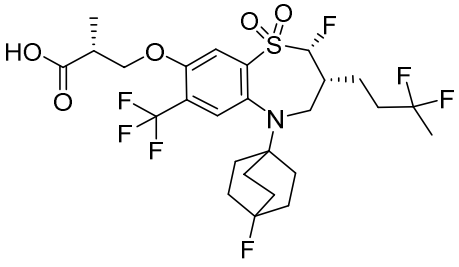
Example	Structure
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199	 ,

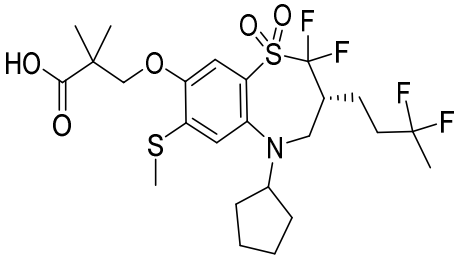
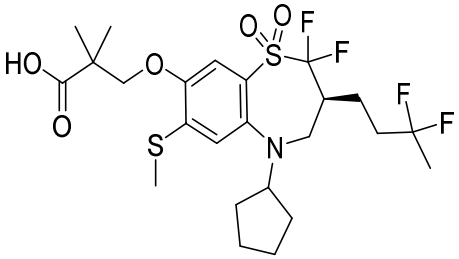
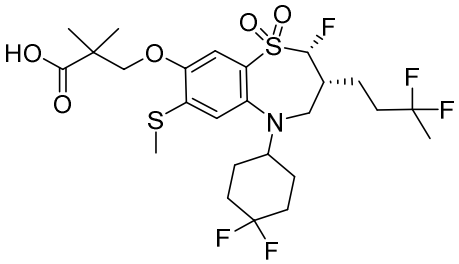
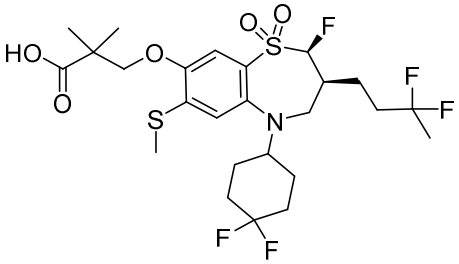
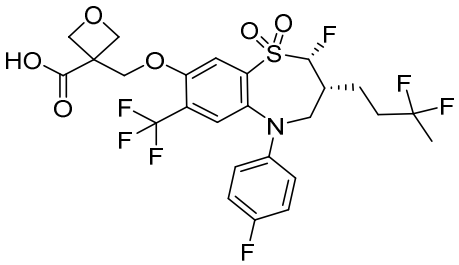
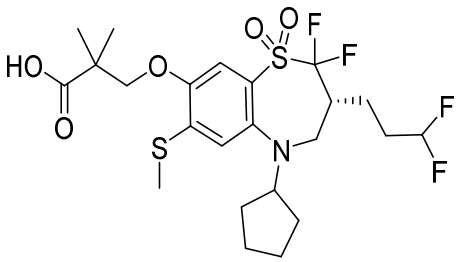
Example	Structure
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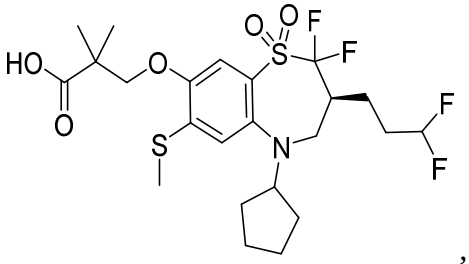
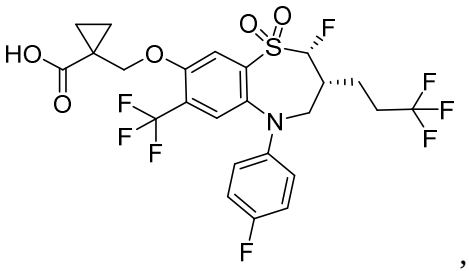
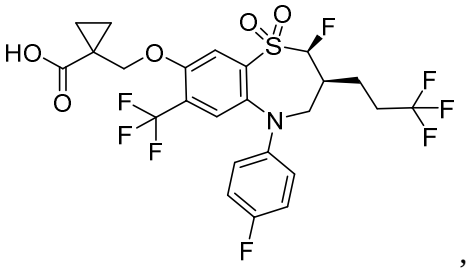
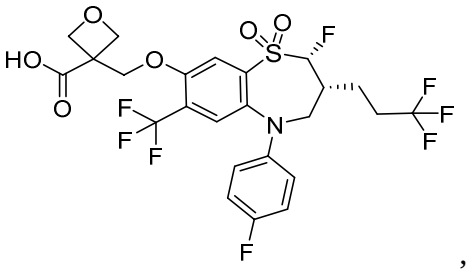
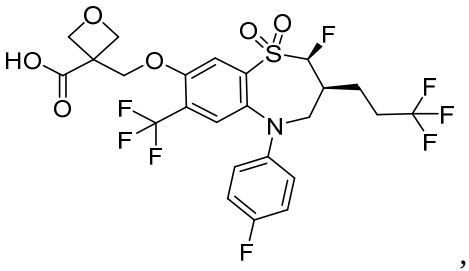
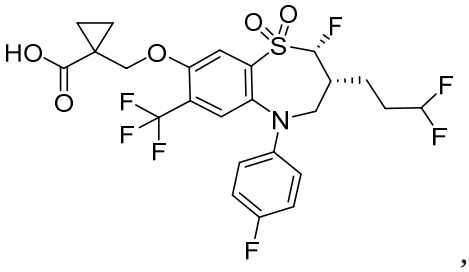
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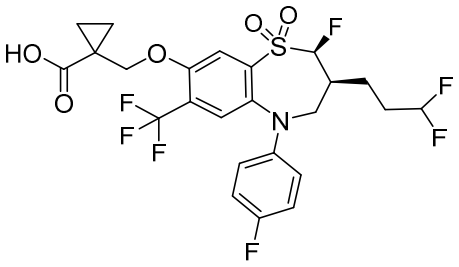
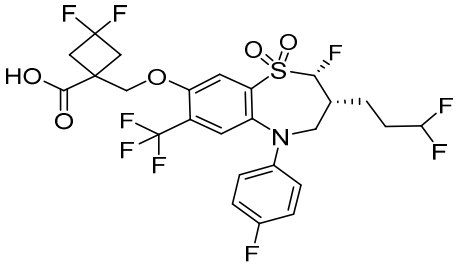
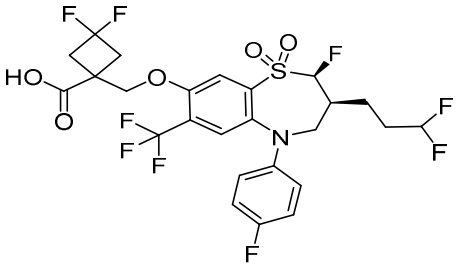
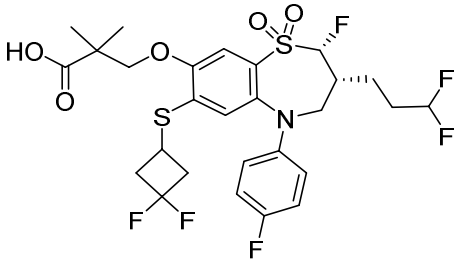
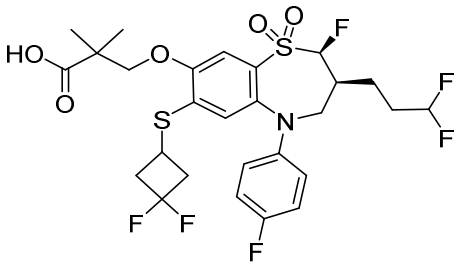
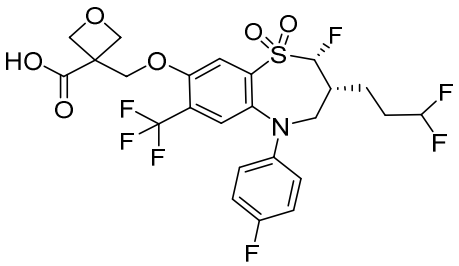
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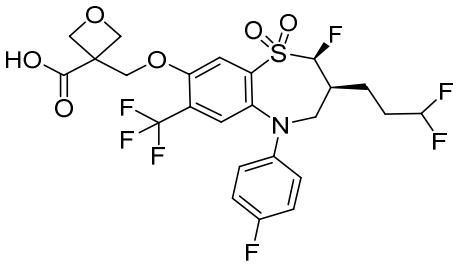
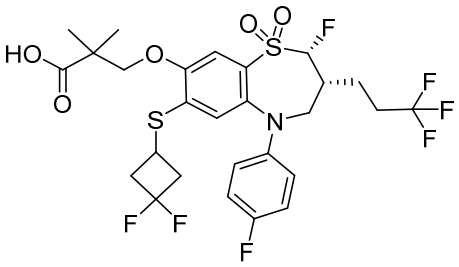
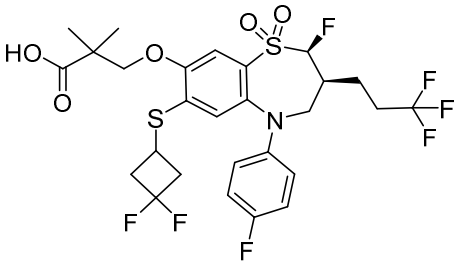
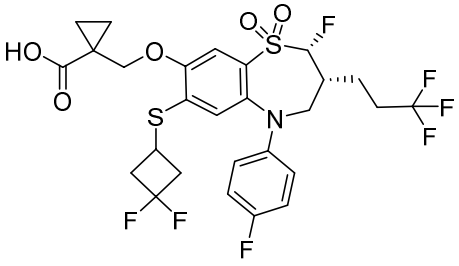
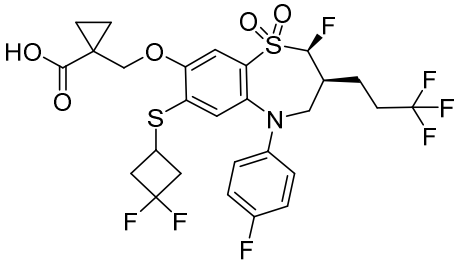
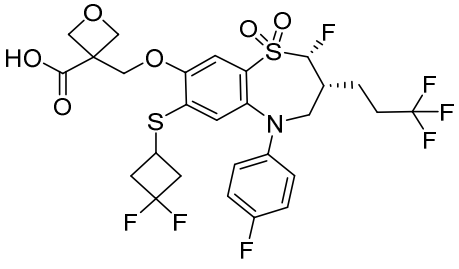
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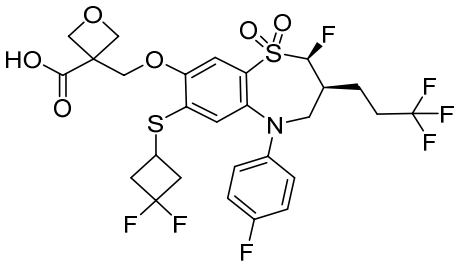
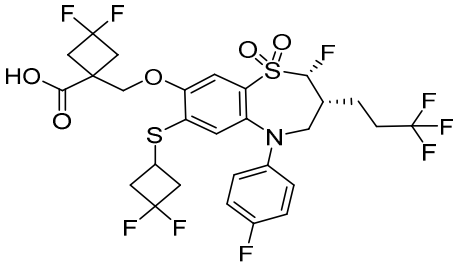
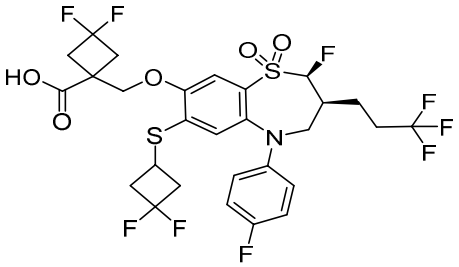
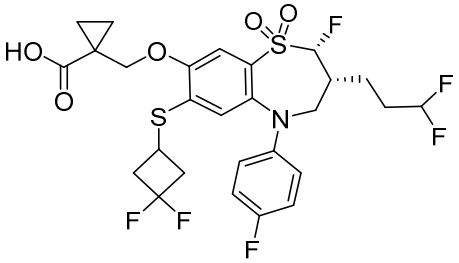
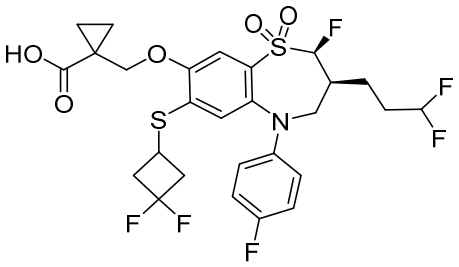
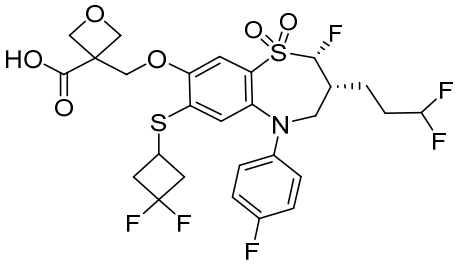
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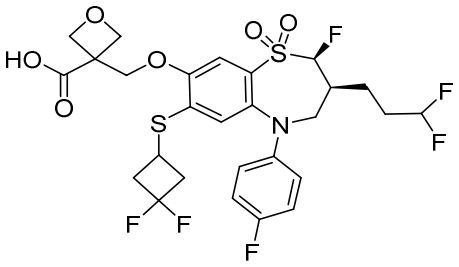
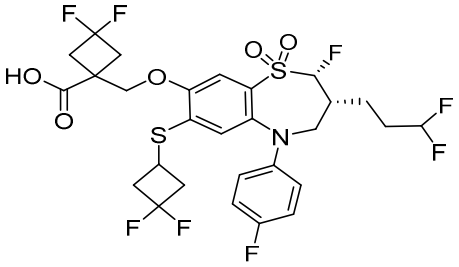
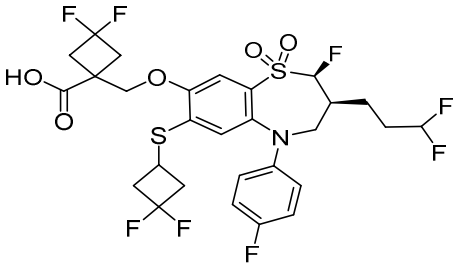
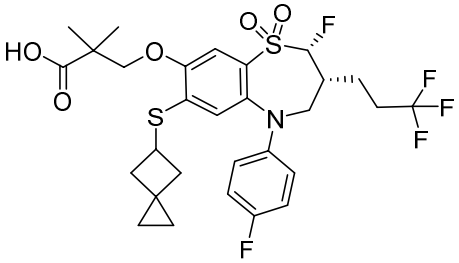
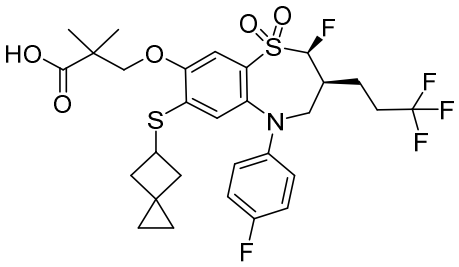
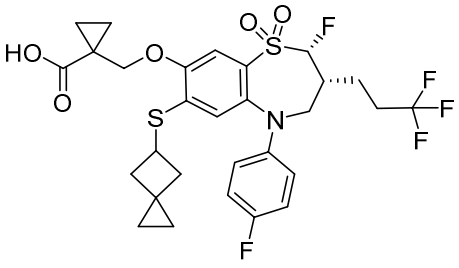
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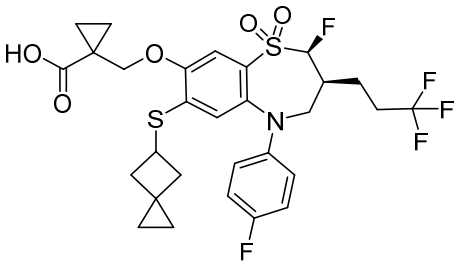
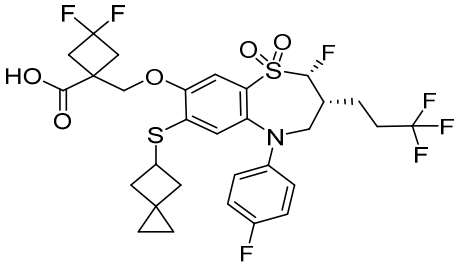
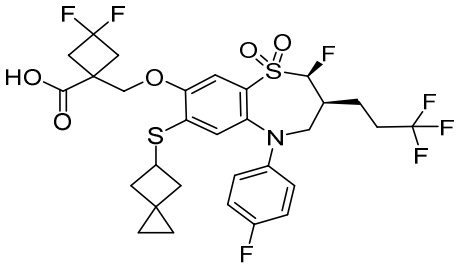
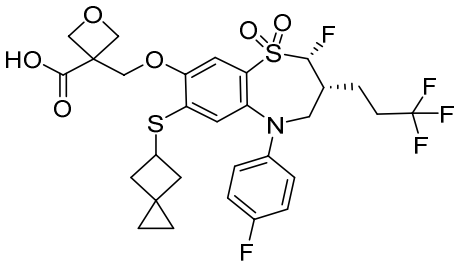
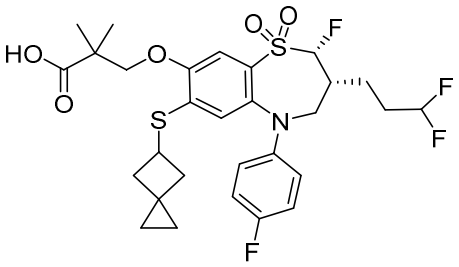
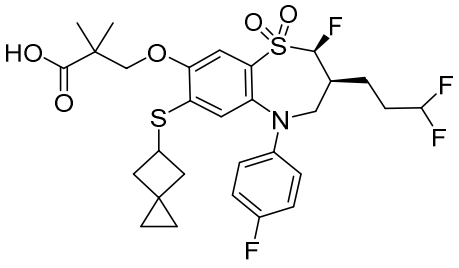
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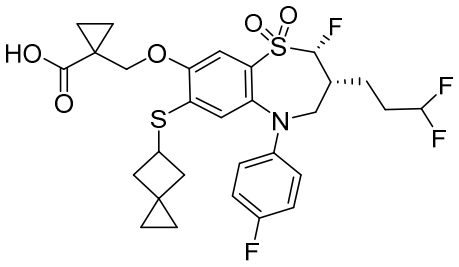
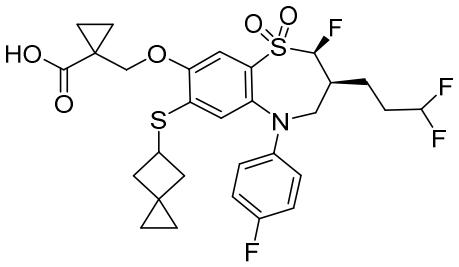
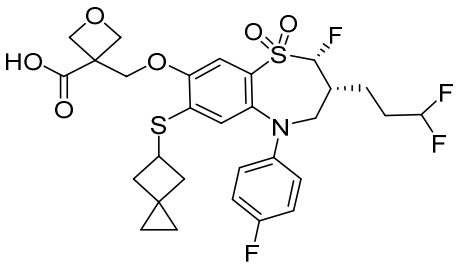
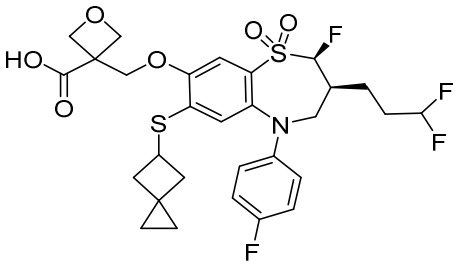
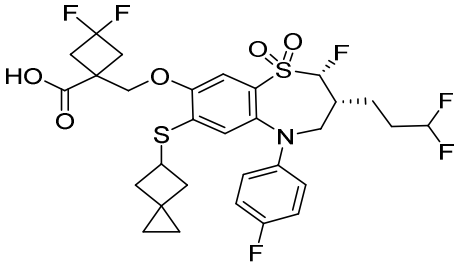
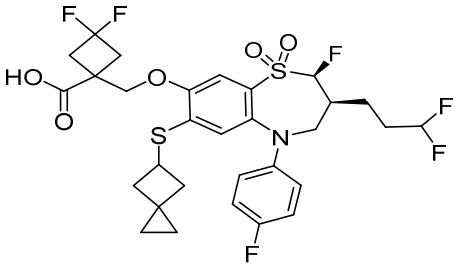
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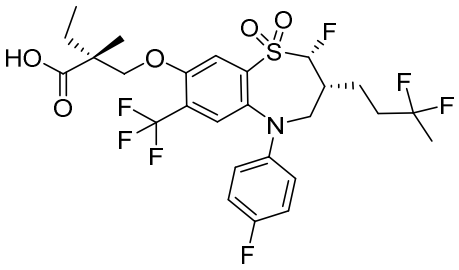
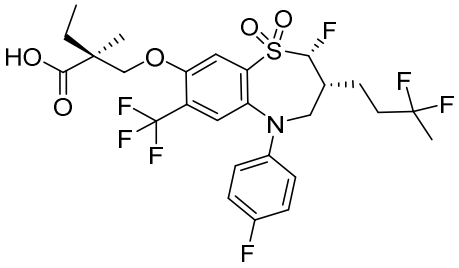
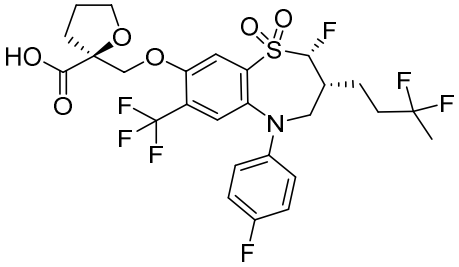
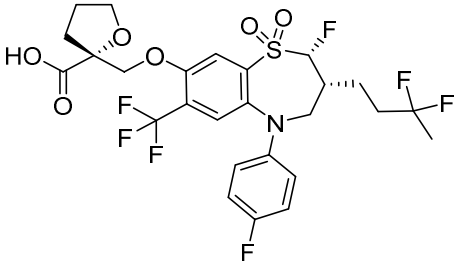
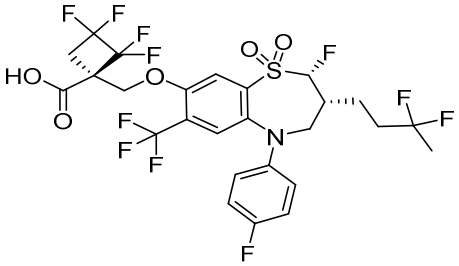
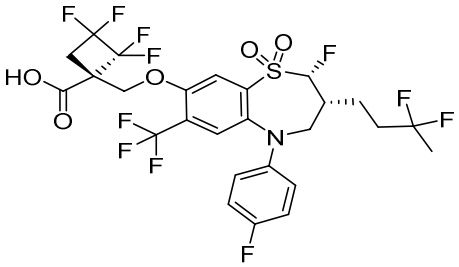
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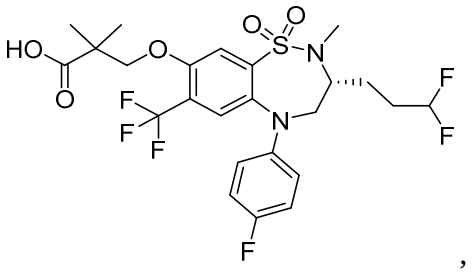
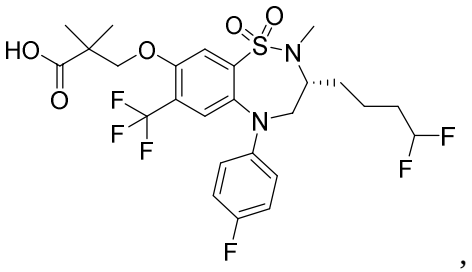
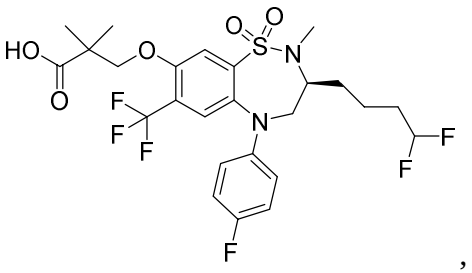
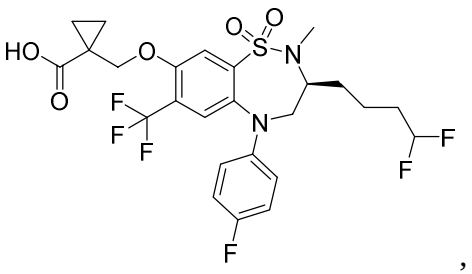
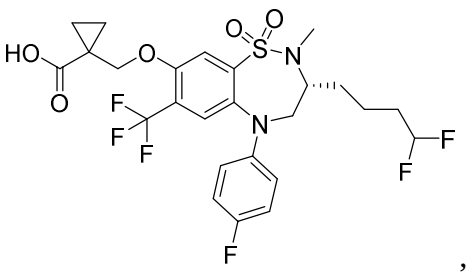
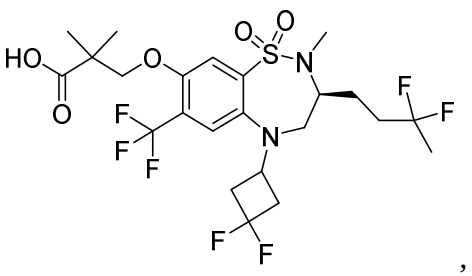
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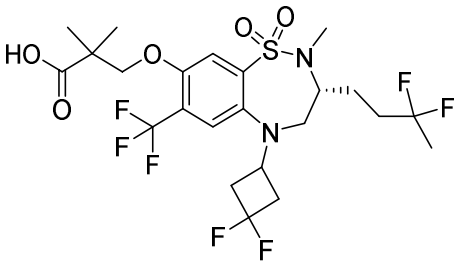
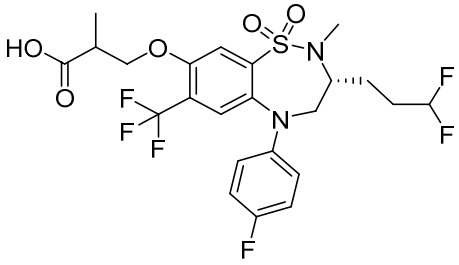
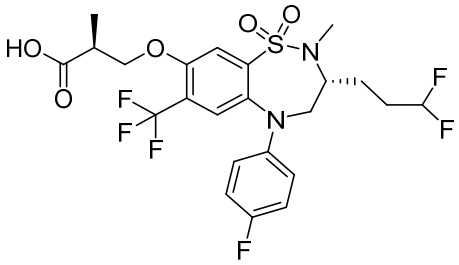
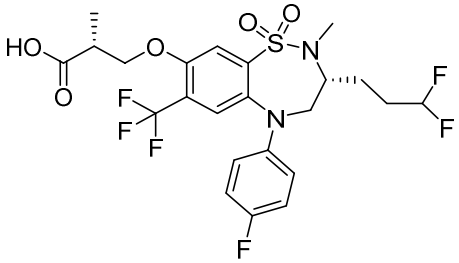
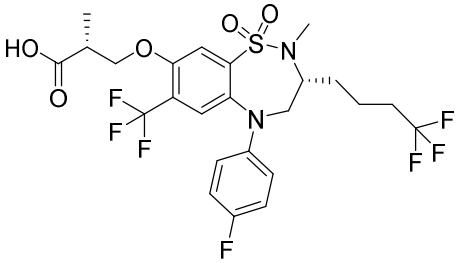
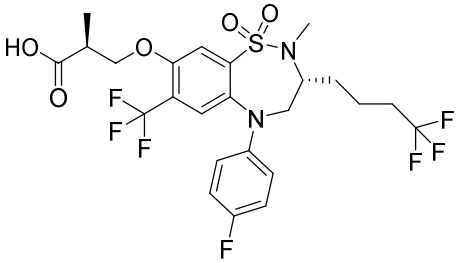
Example	Structure
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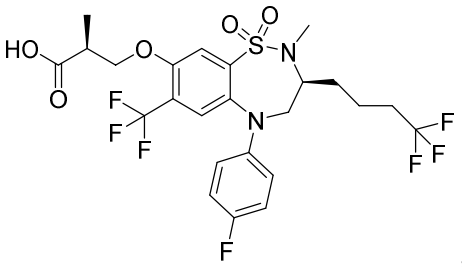
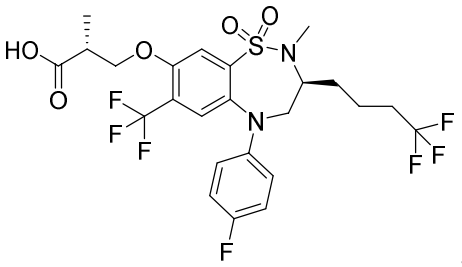
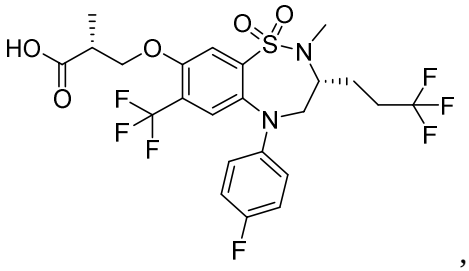
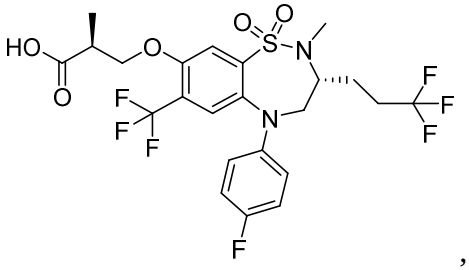
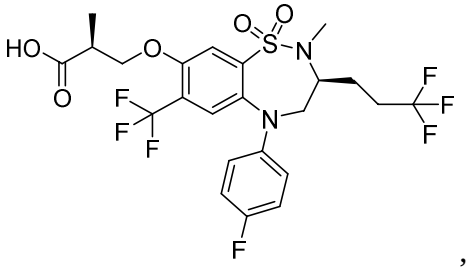
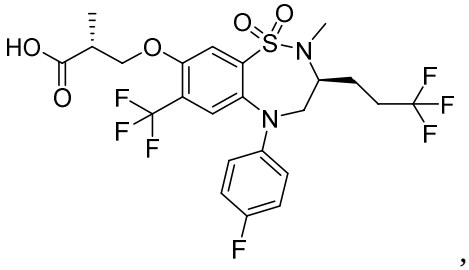
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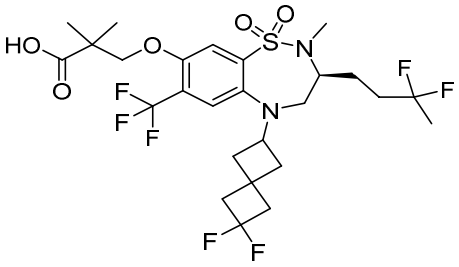
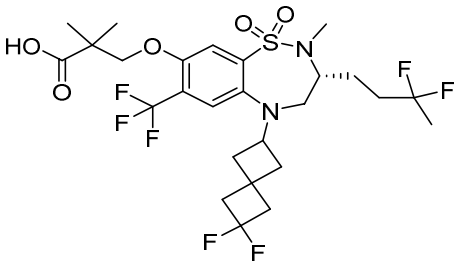
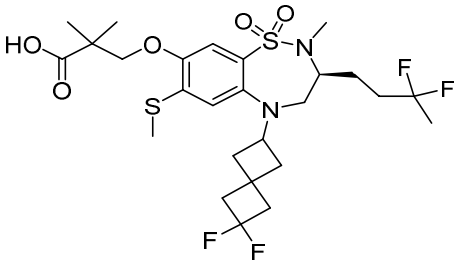
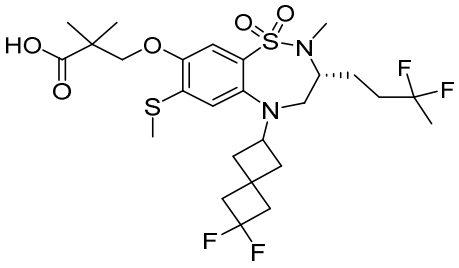
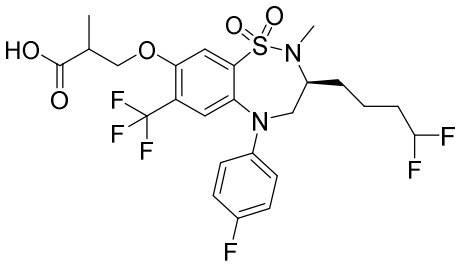
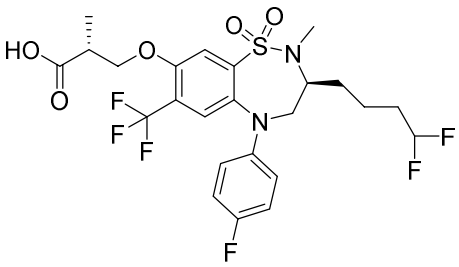
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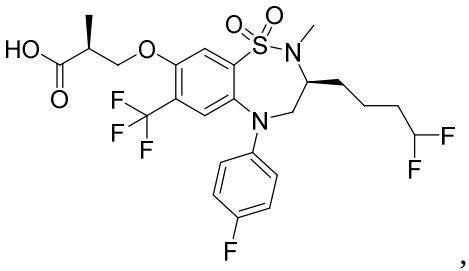
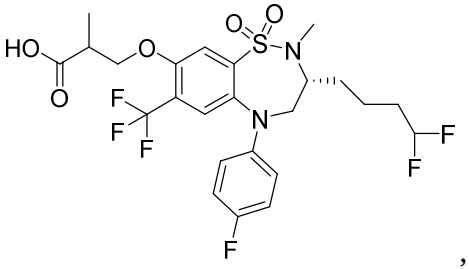
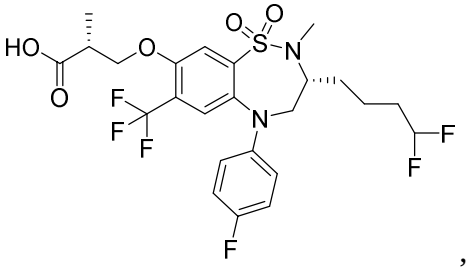
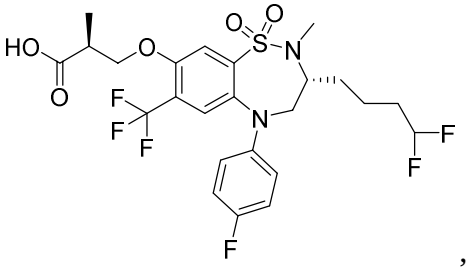
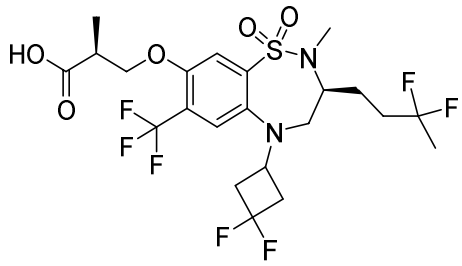
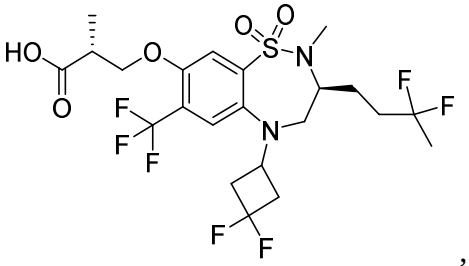
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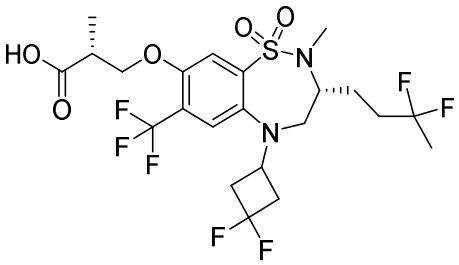
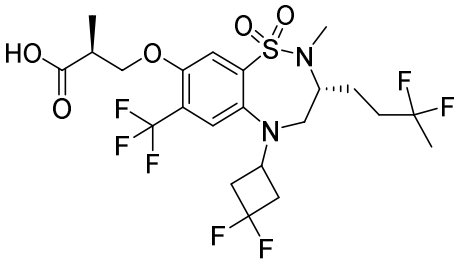
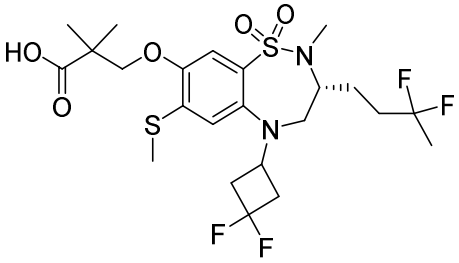
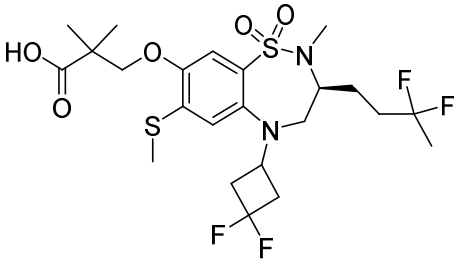
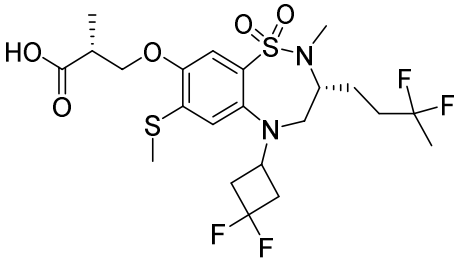
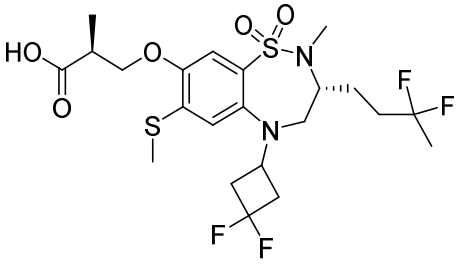
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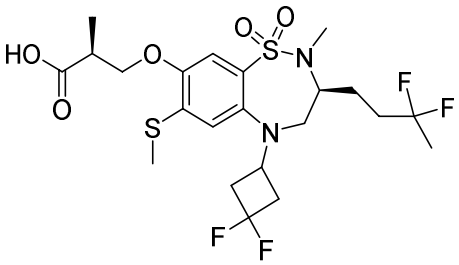
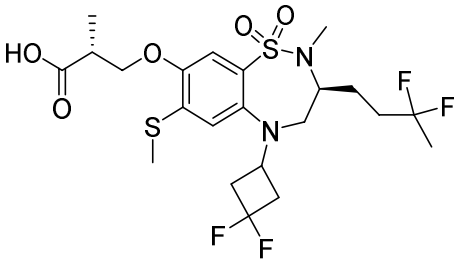
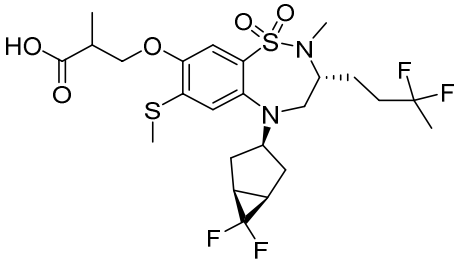
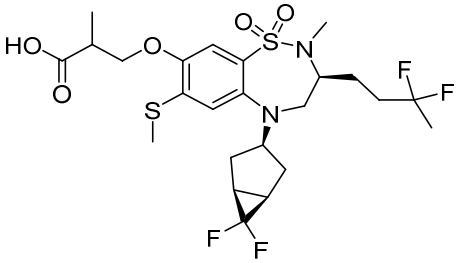
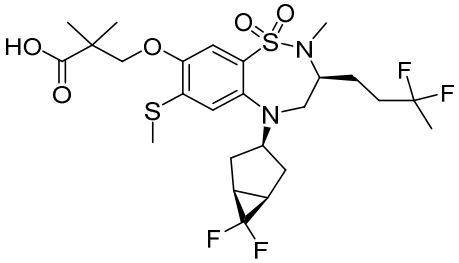
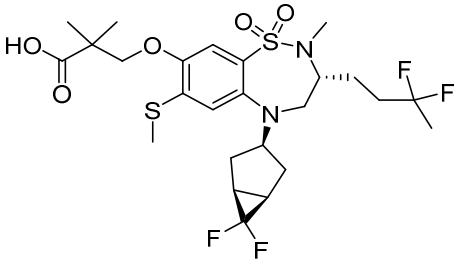
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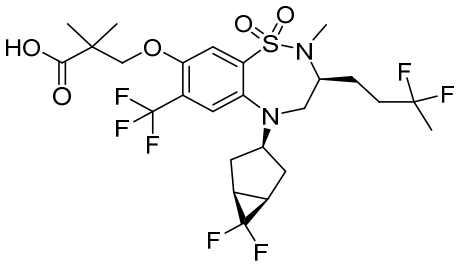
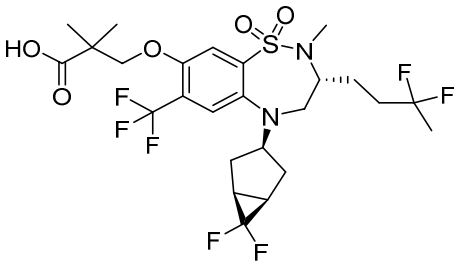
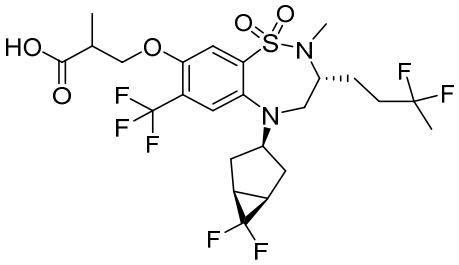
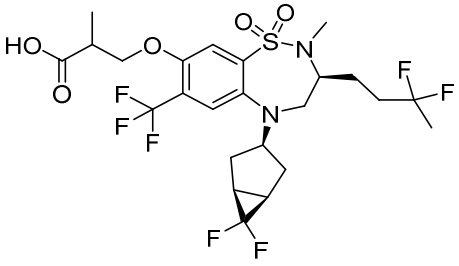
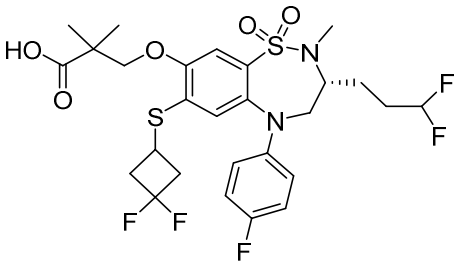
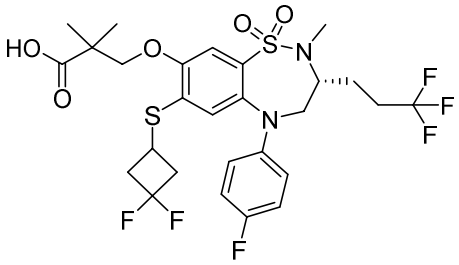
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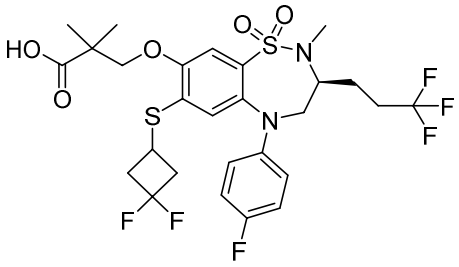
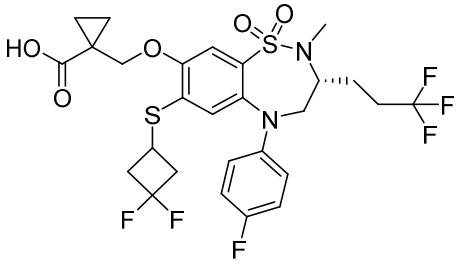
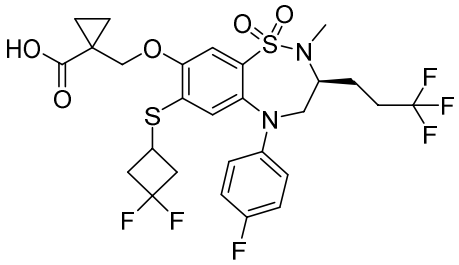
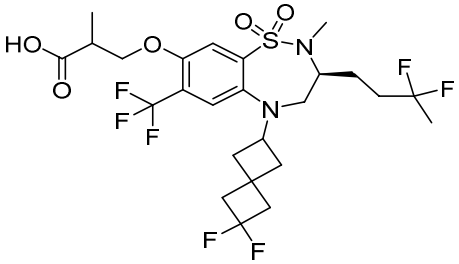
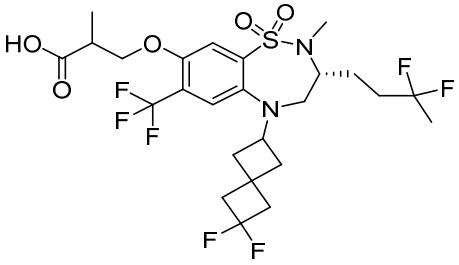
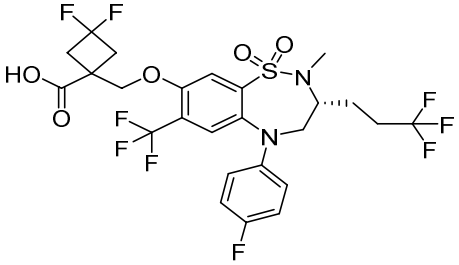
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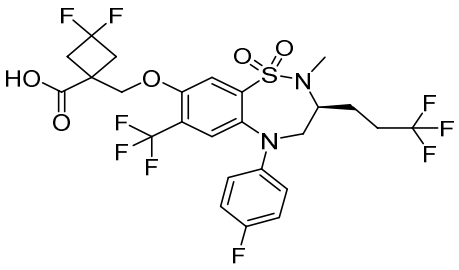
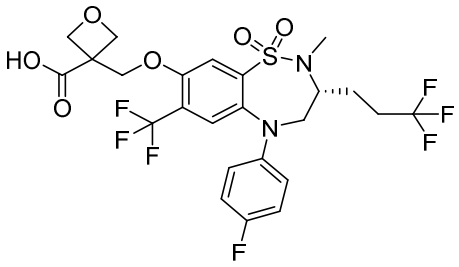
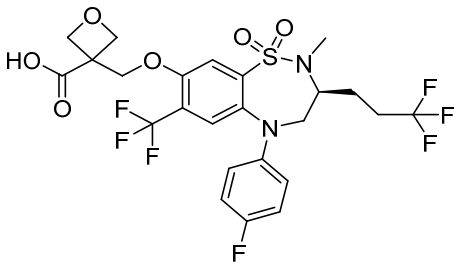
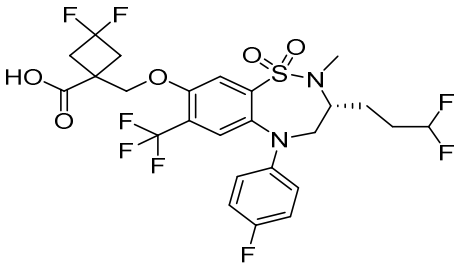
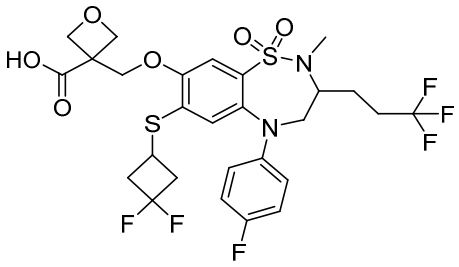
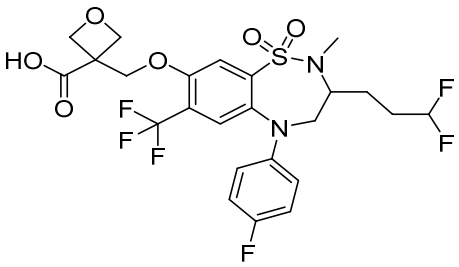
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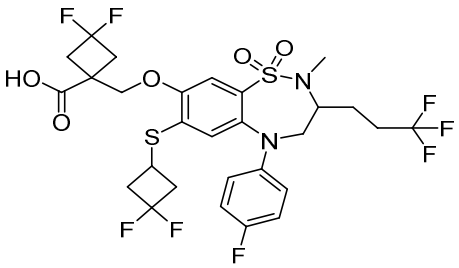
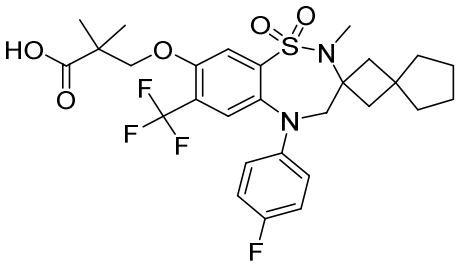
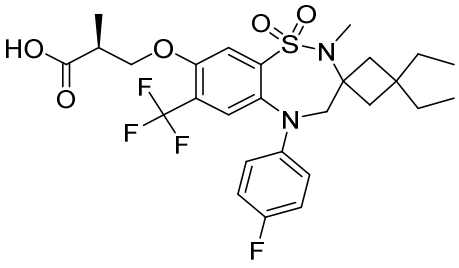
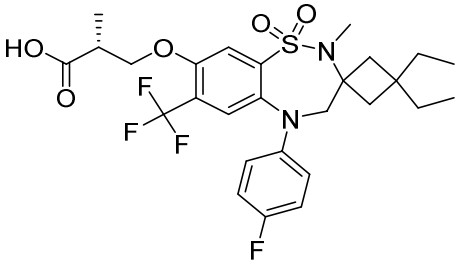
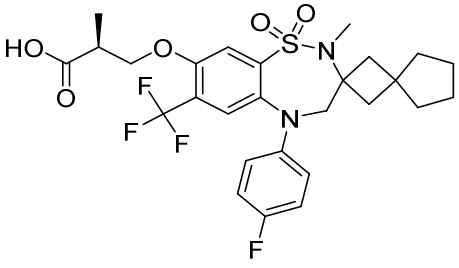
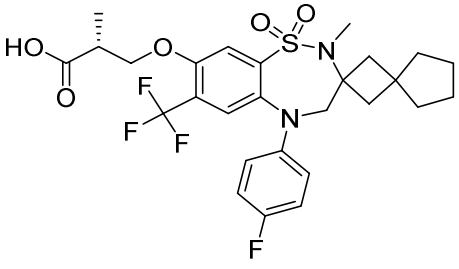
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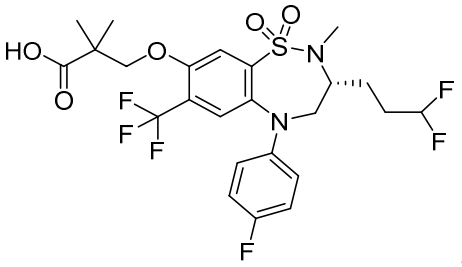
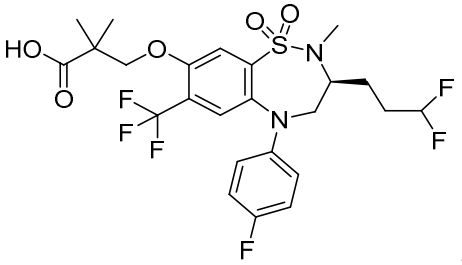
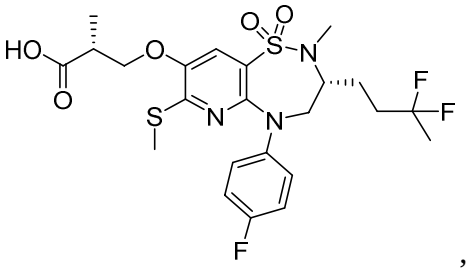
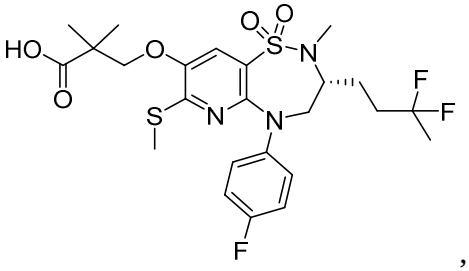
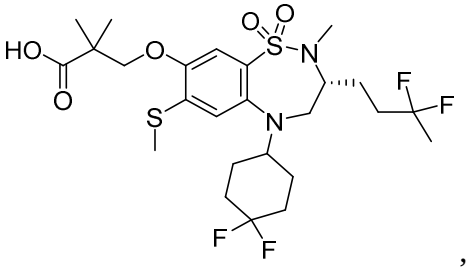
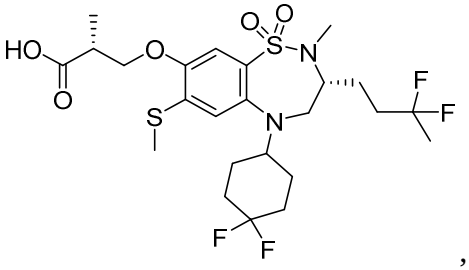
Example	Structure
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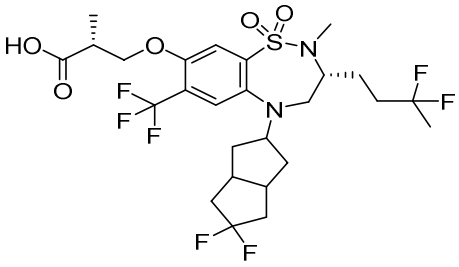
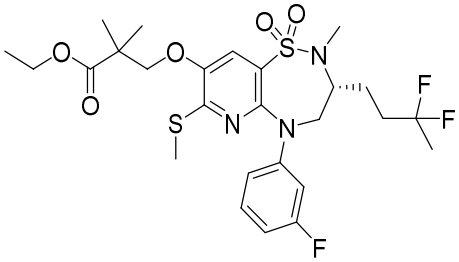
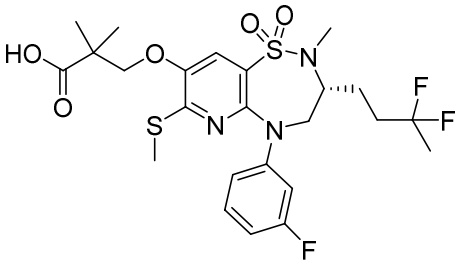
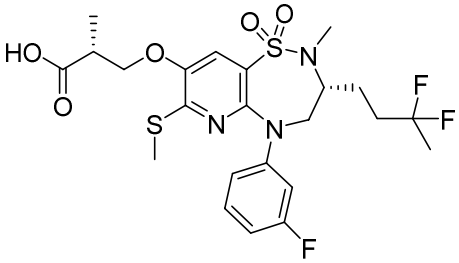
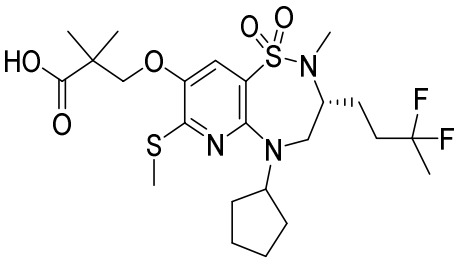
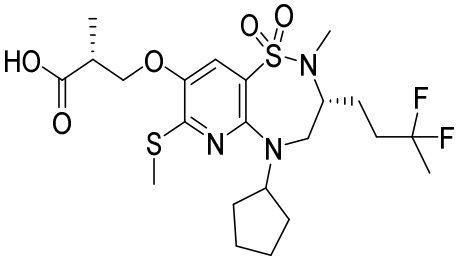
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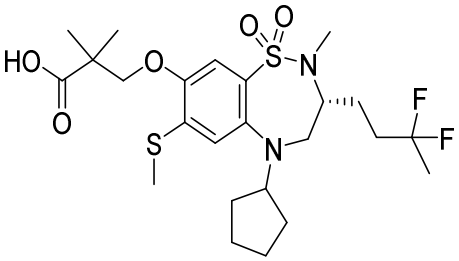
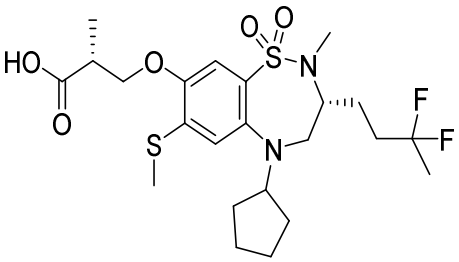
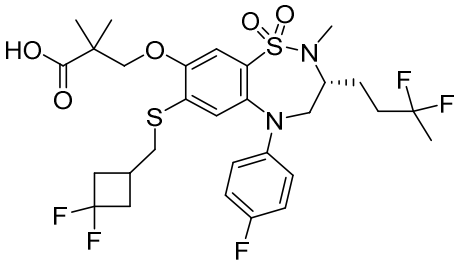
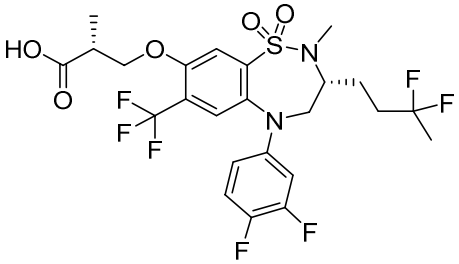
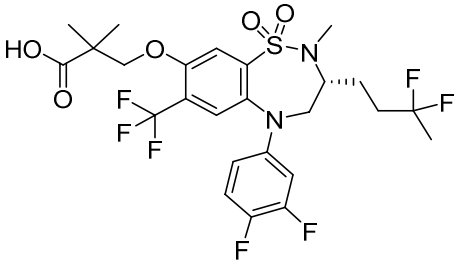
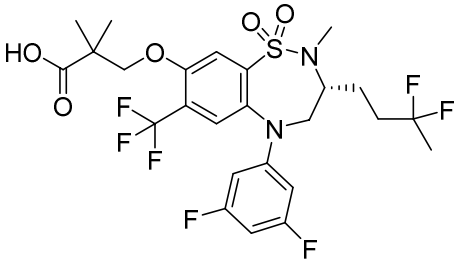
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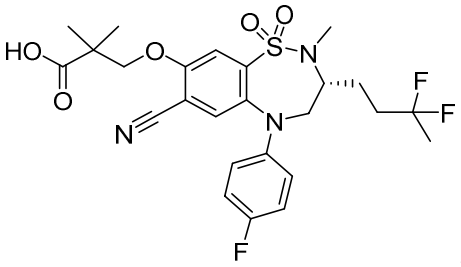
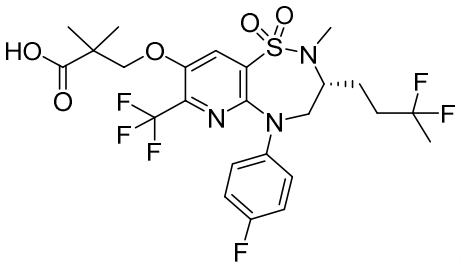
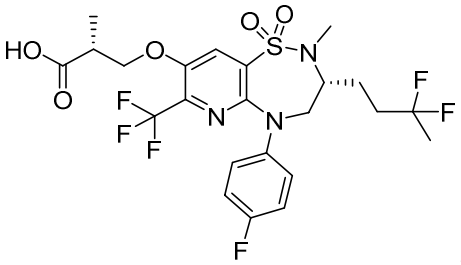
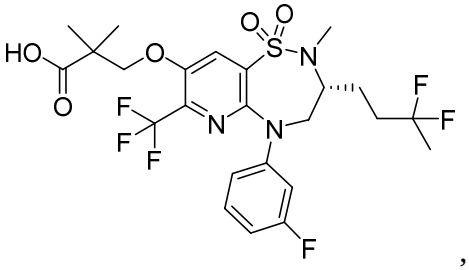
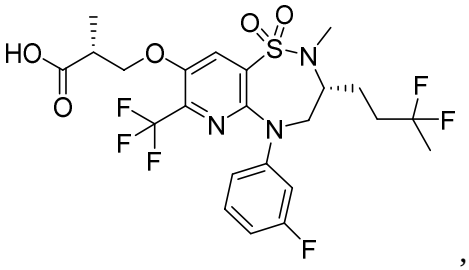
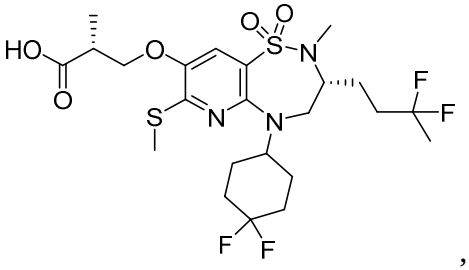
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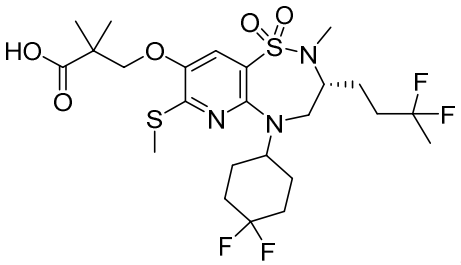
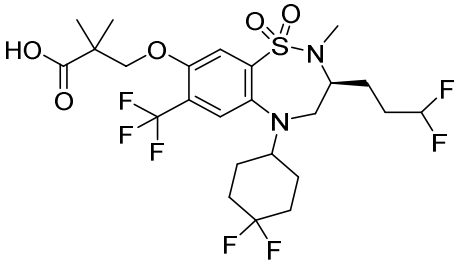
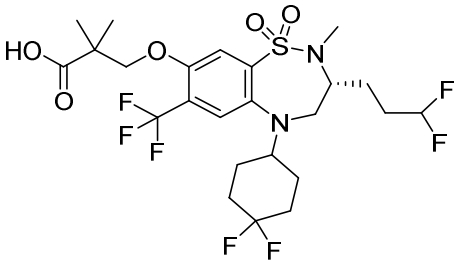
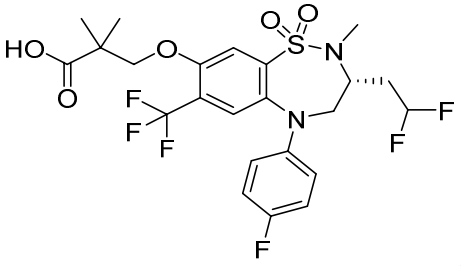
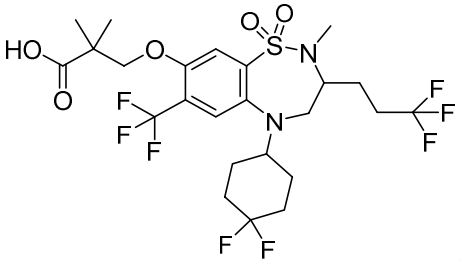
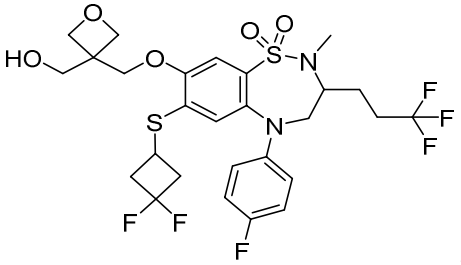
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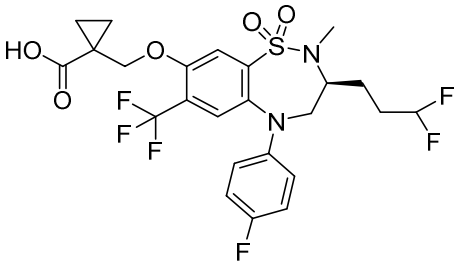
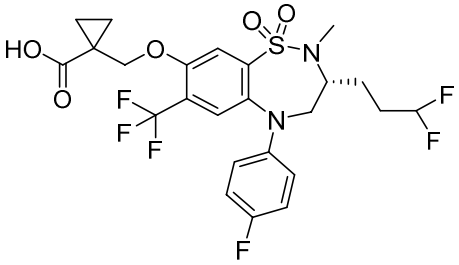
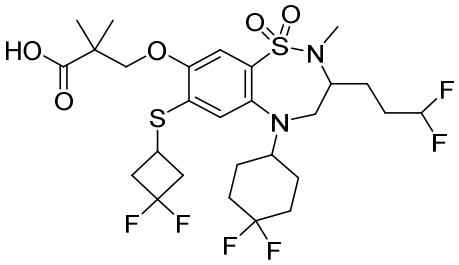
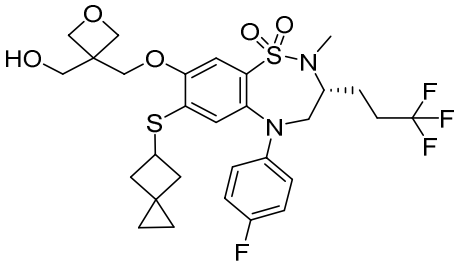
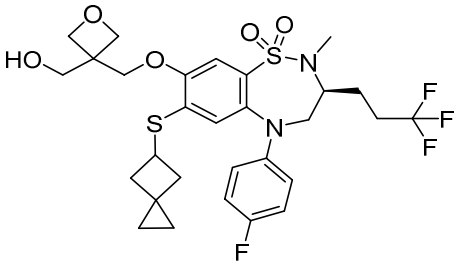
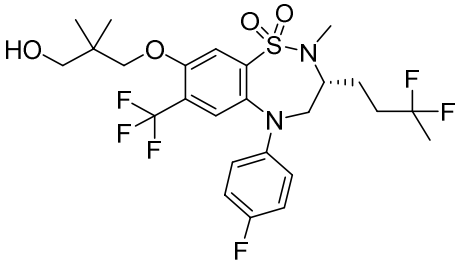
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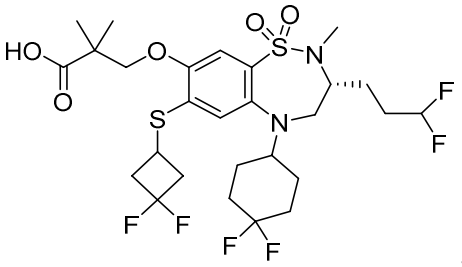
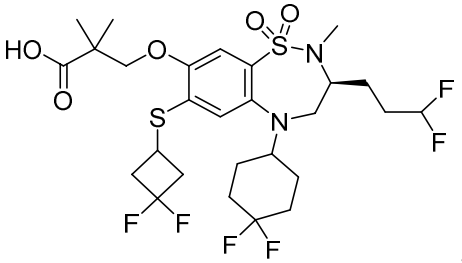
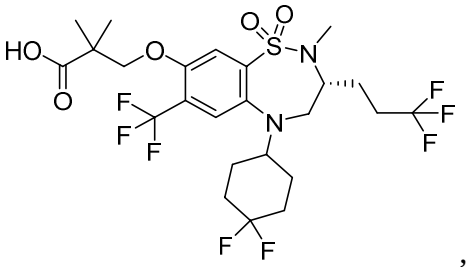
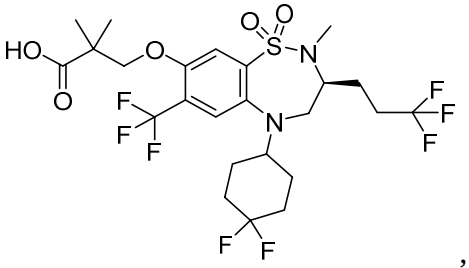
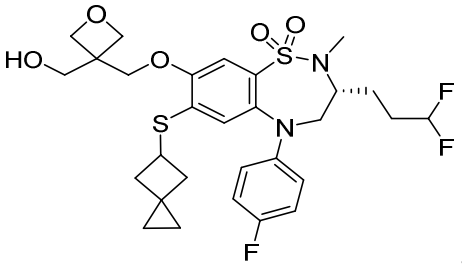
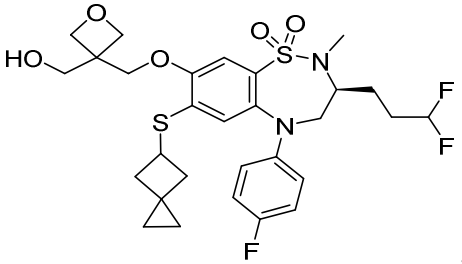
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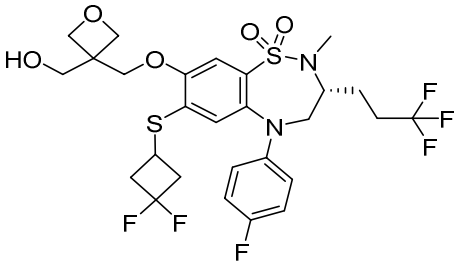
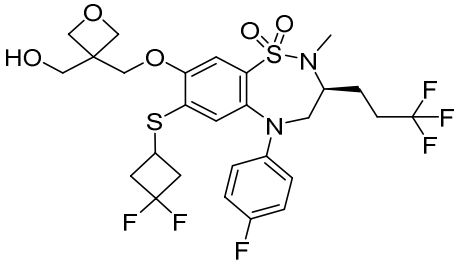
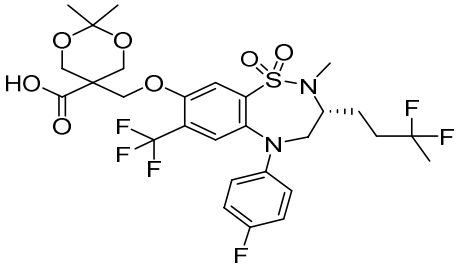
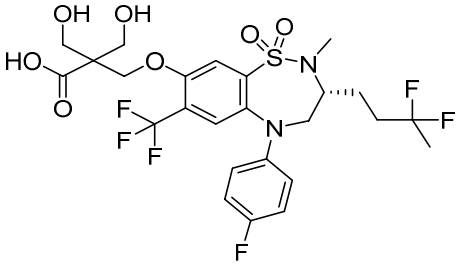
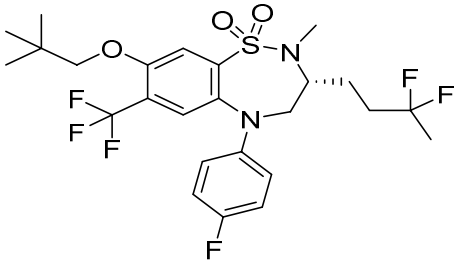
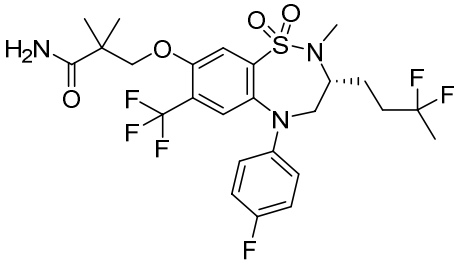
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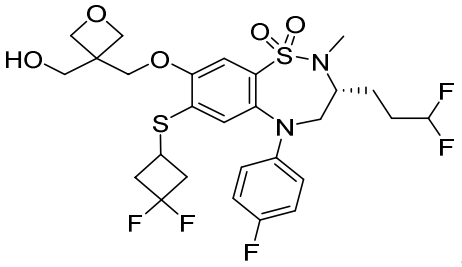
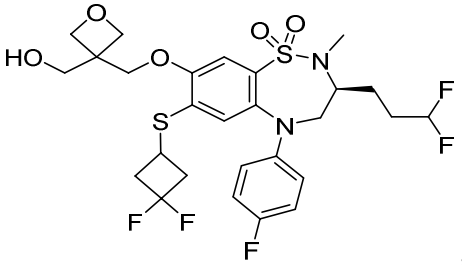
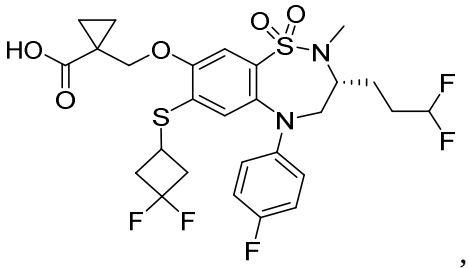
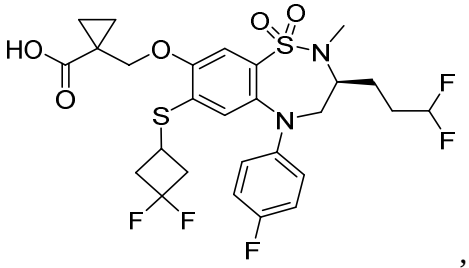
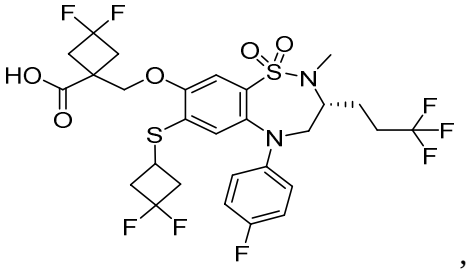
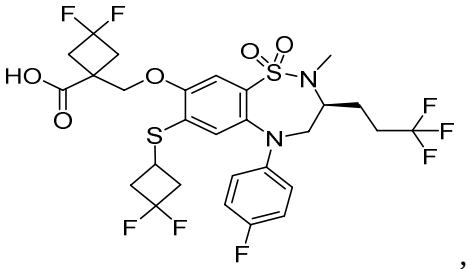
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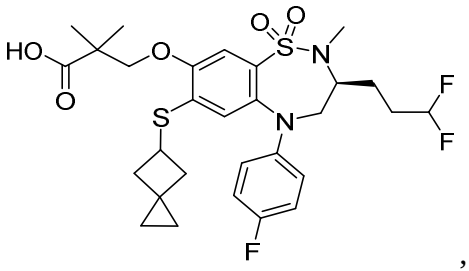
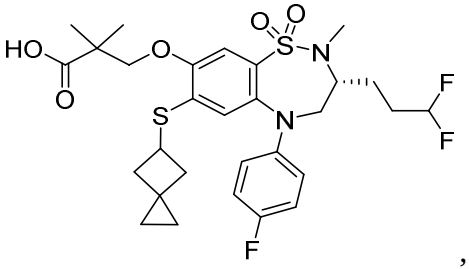
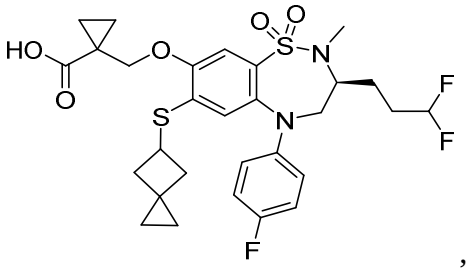
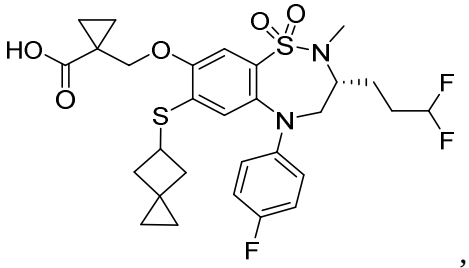
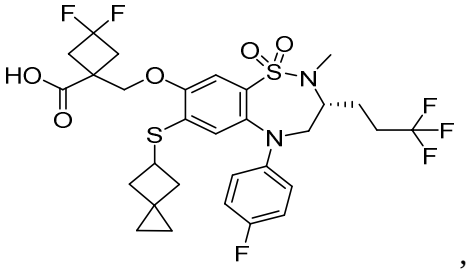
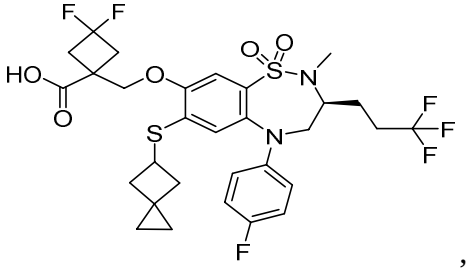
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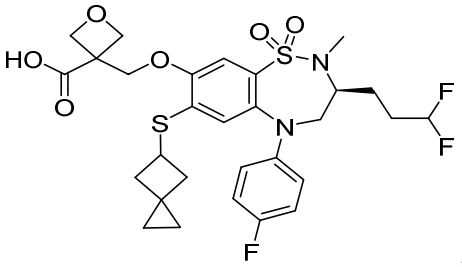
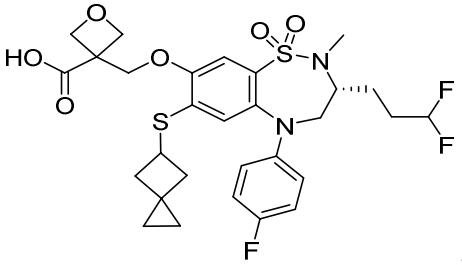
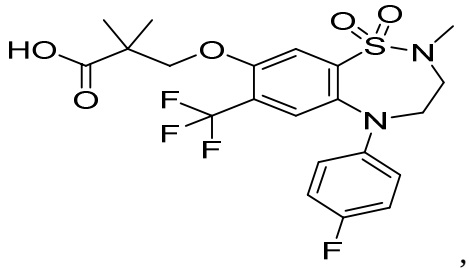
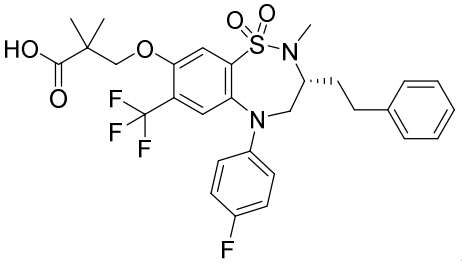
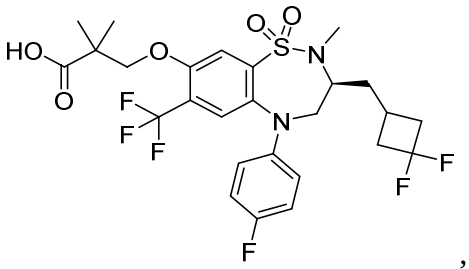
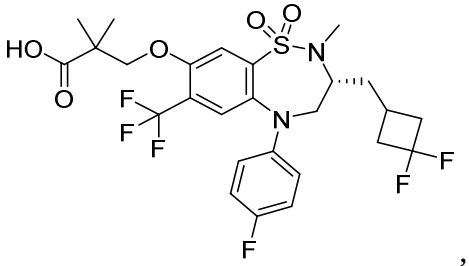
Example	Structure
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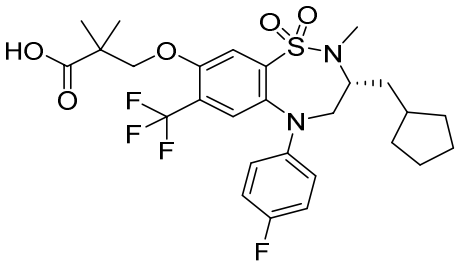
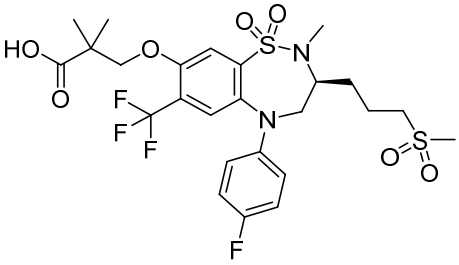
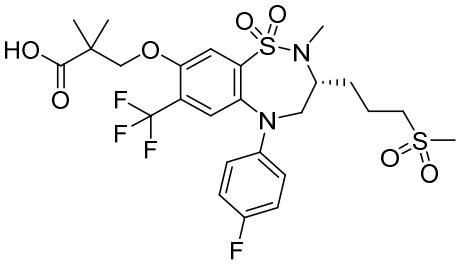
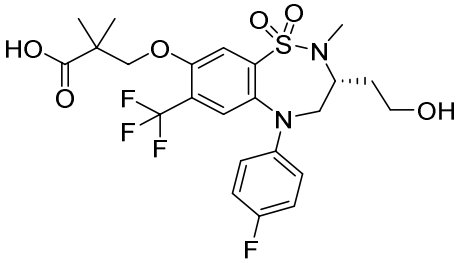
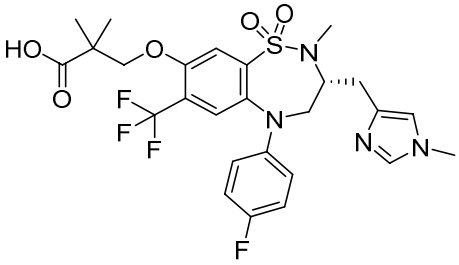
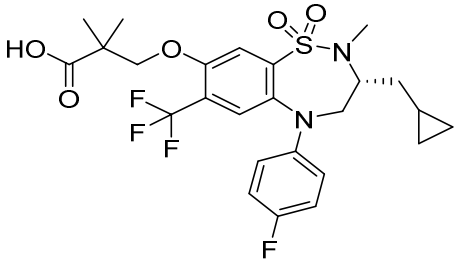
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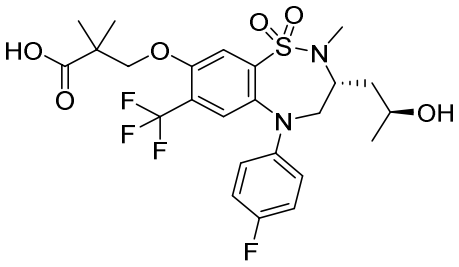
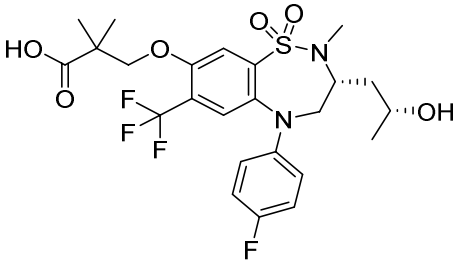
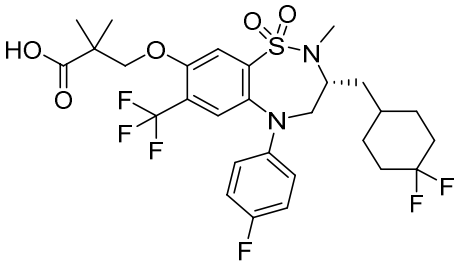
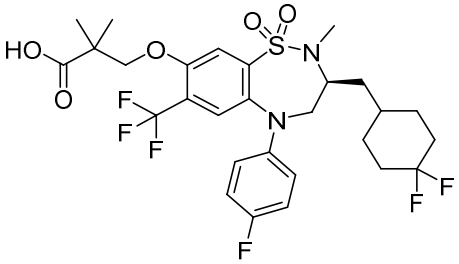
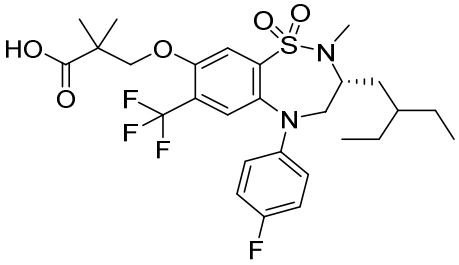
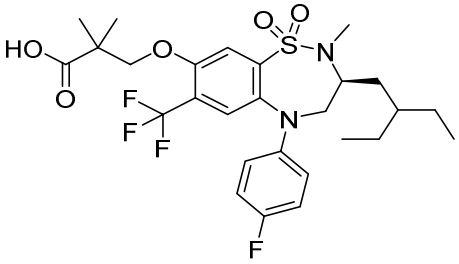
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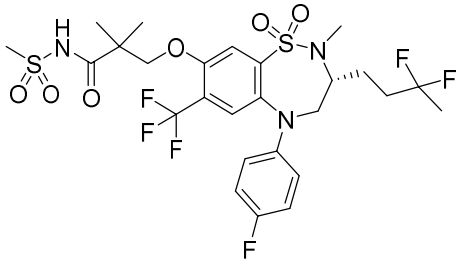
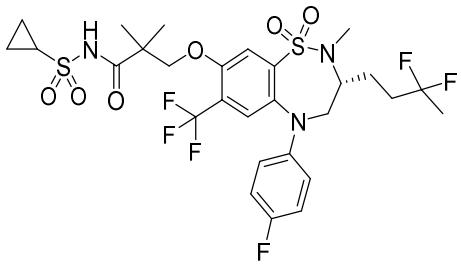
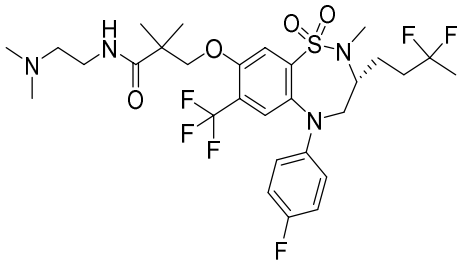
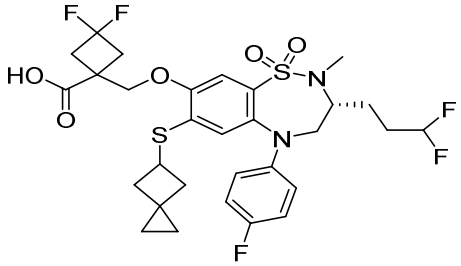
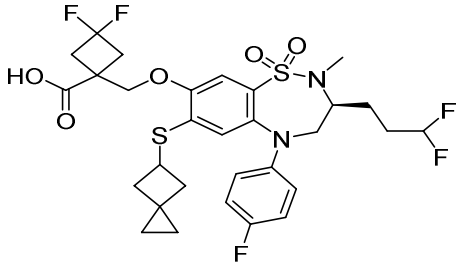
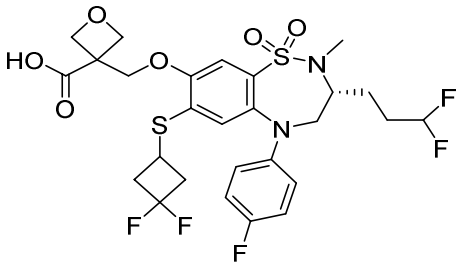
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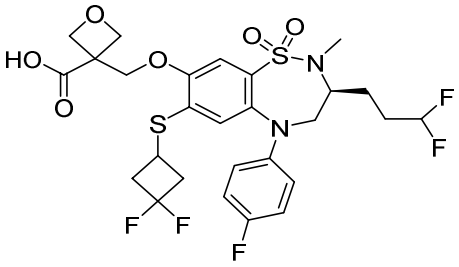
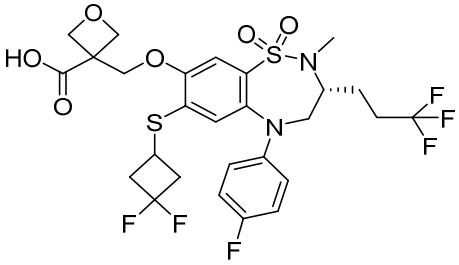
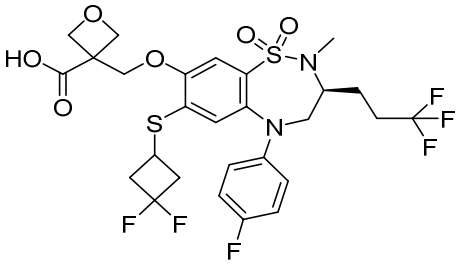
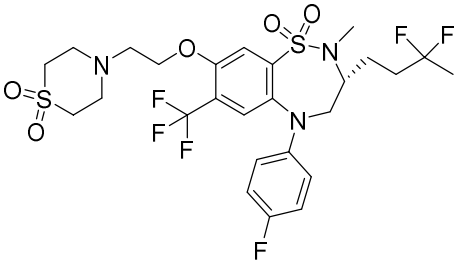
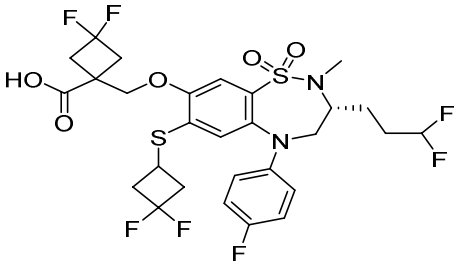
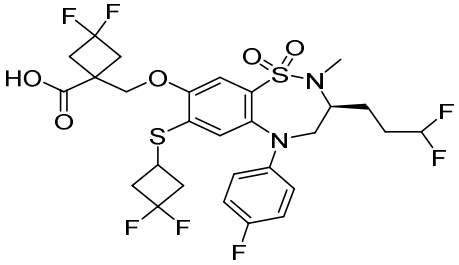
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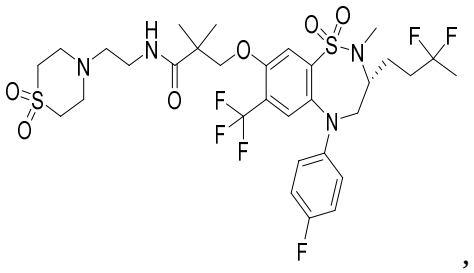
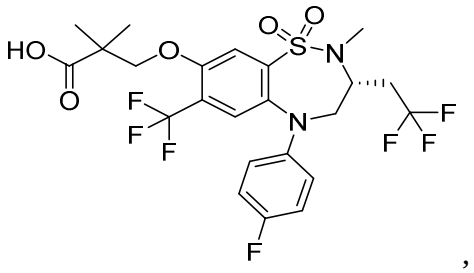
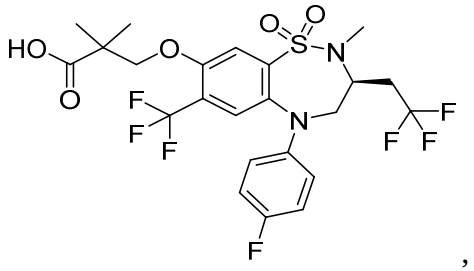
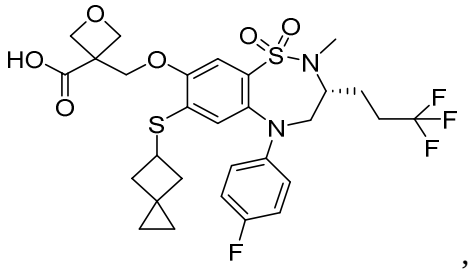
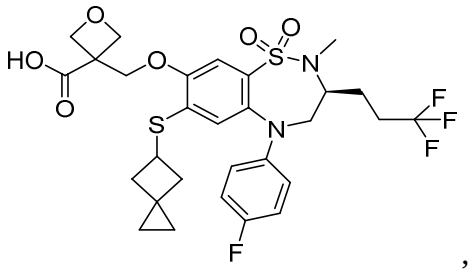
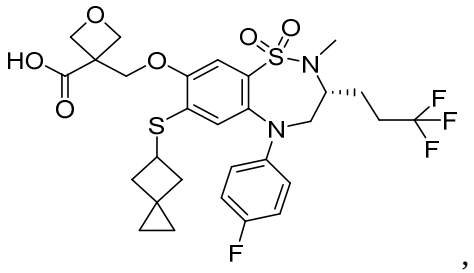
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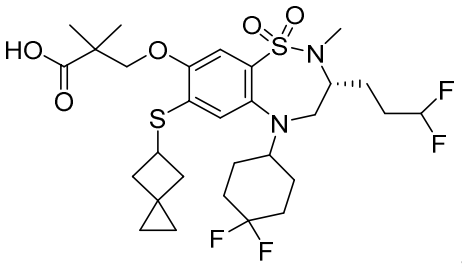
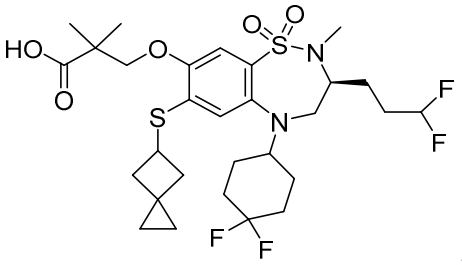
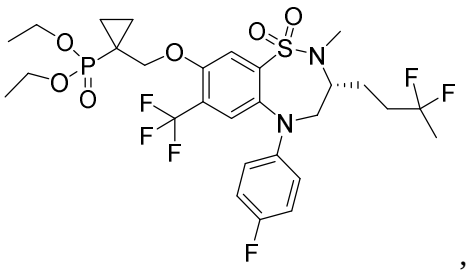
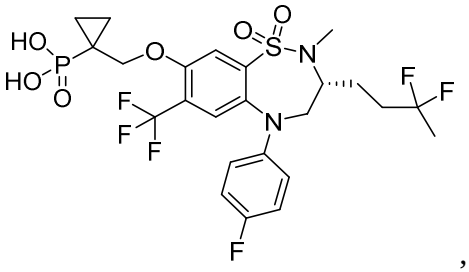
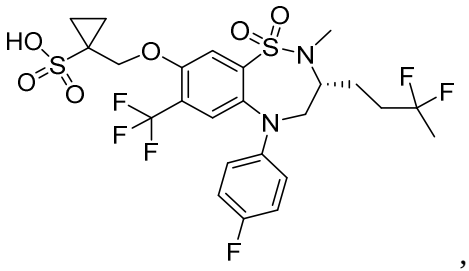
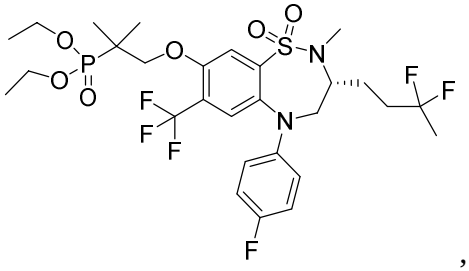
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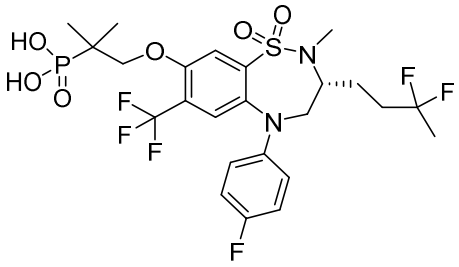
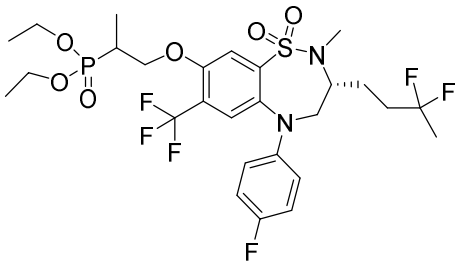
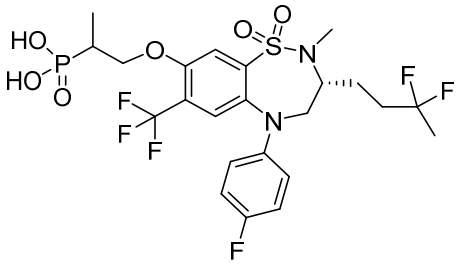
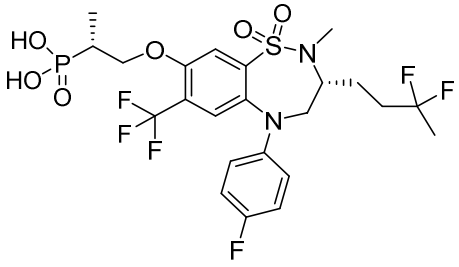
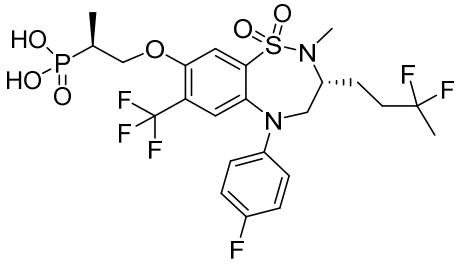
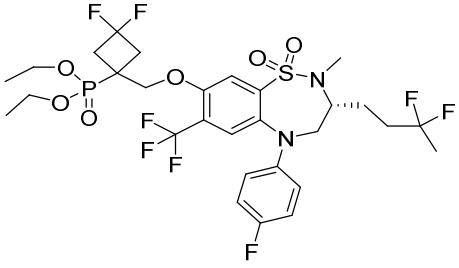
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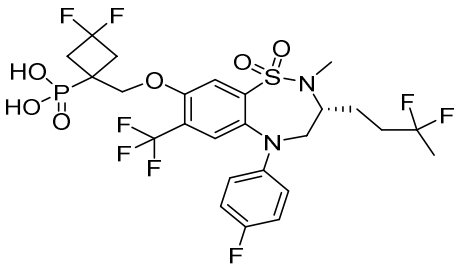
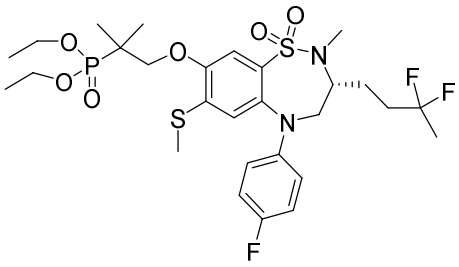
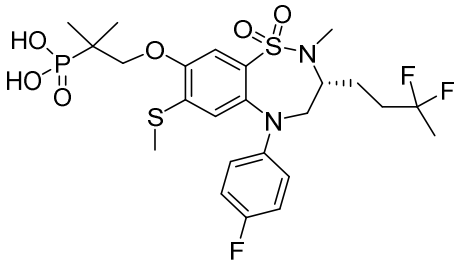
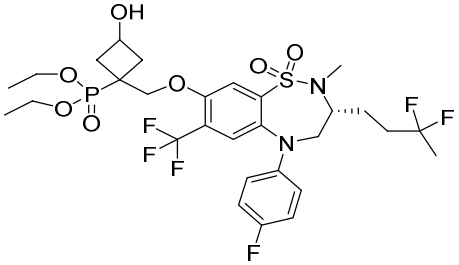
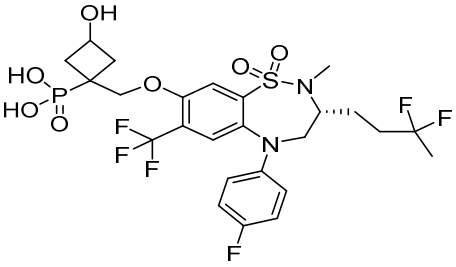
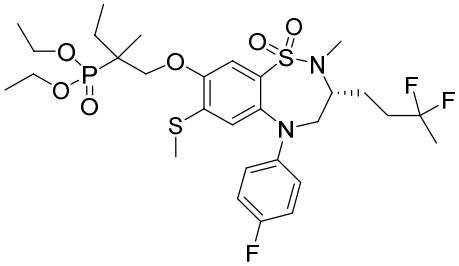
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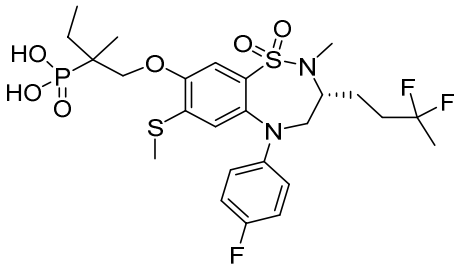
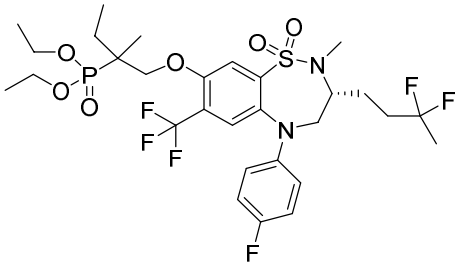
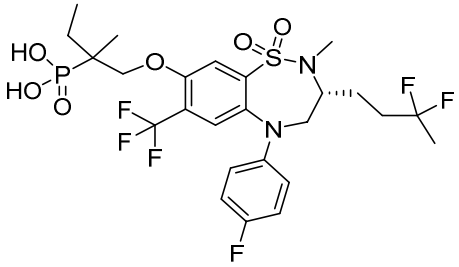
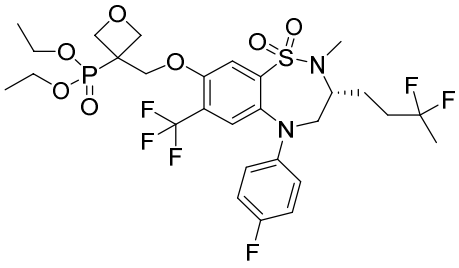
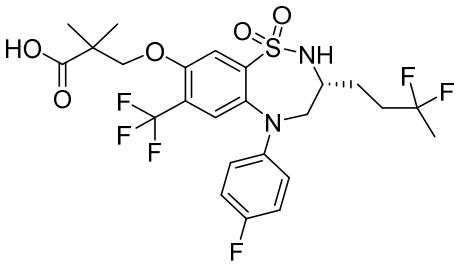
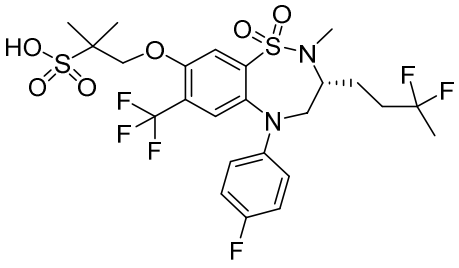
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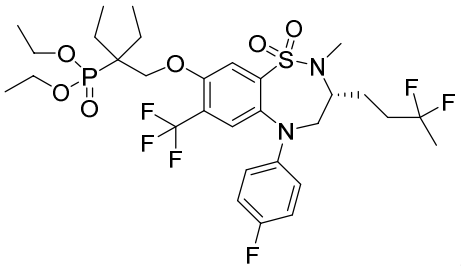
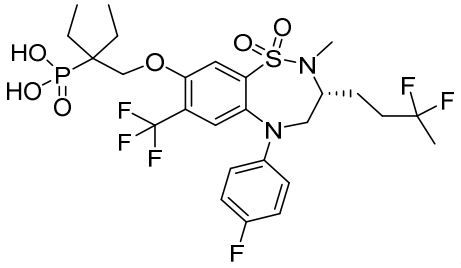
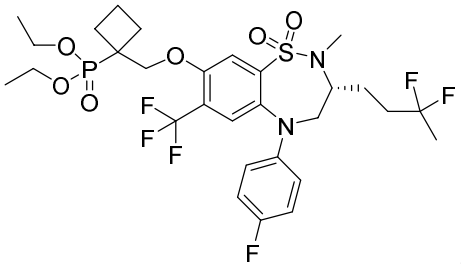
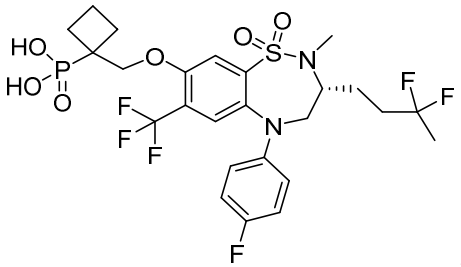
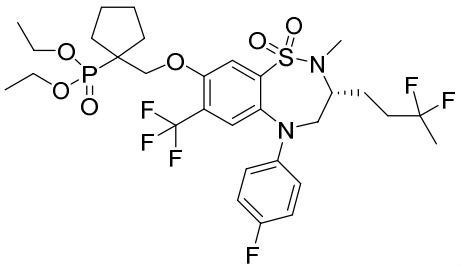
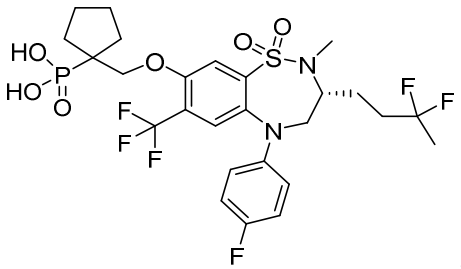
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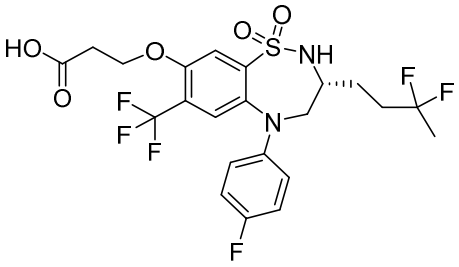
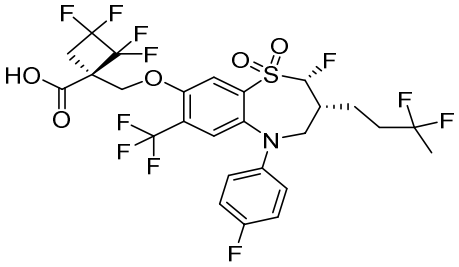
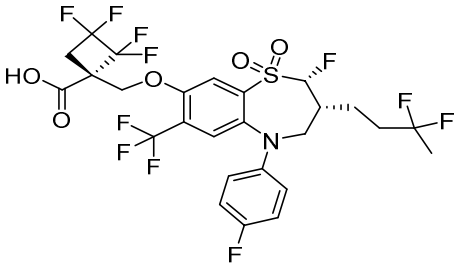
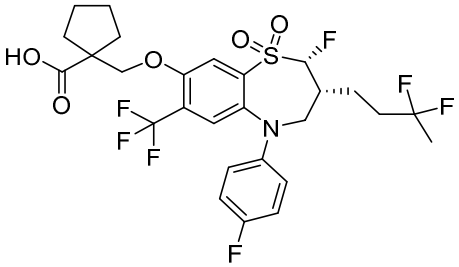
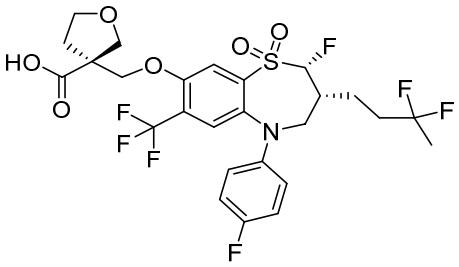
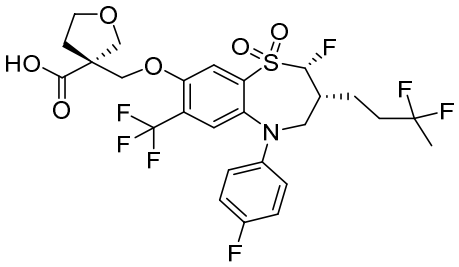
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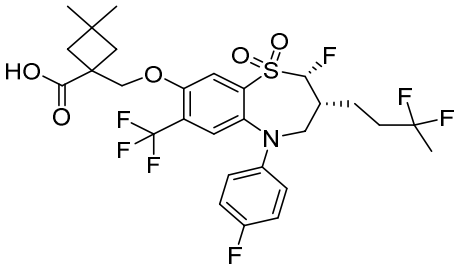
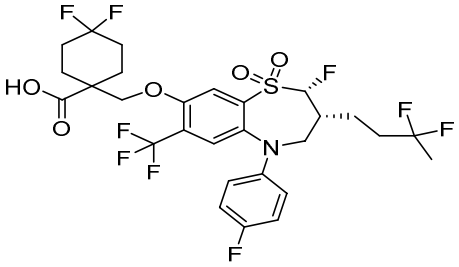
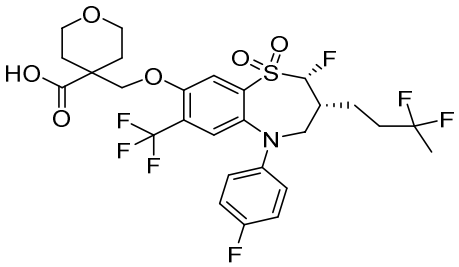
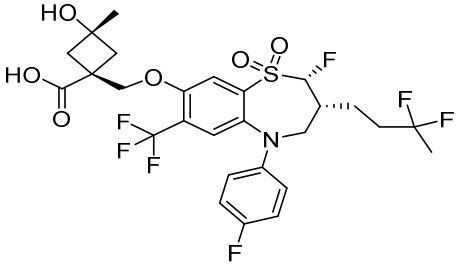
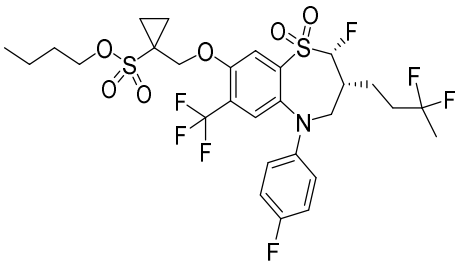
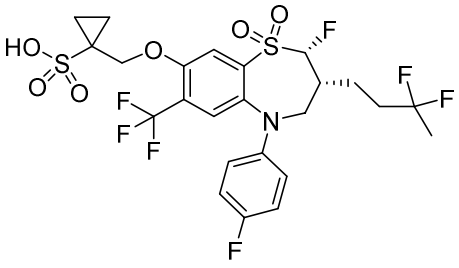
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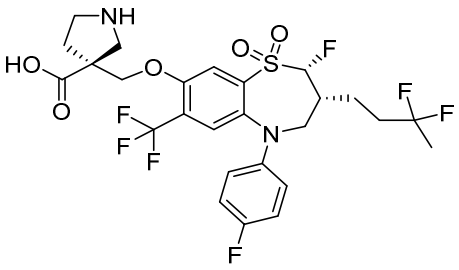
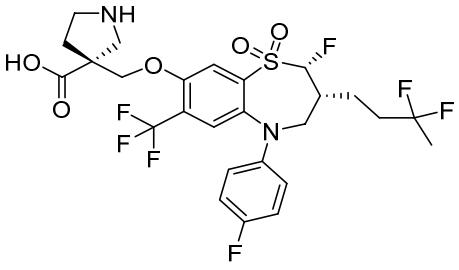
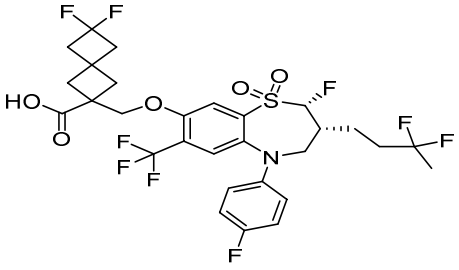
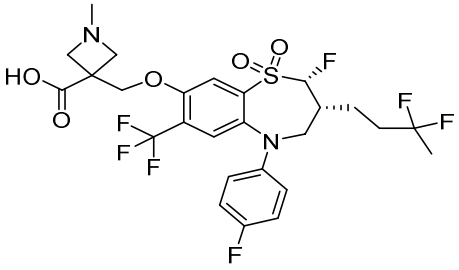
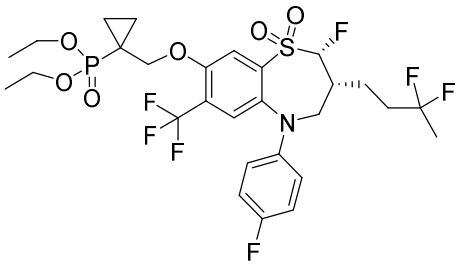
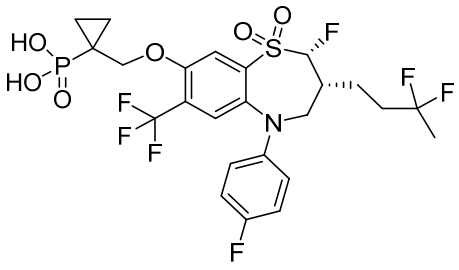
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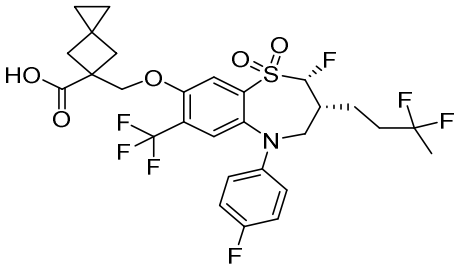
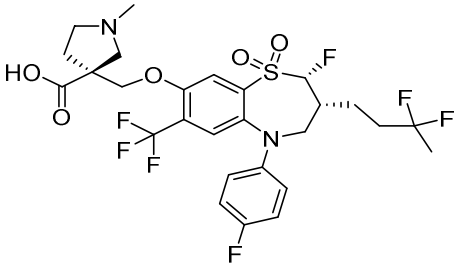
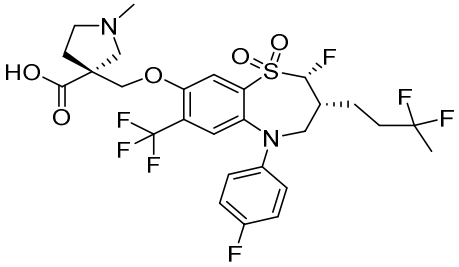
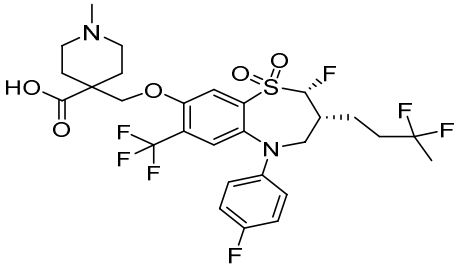
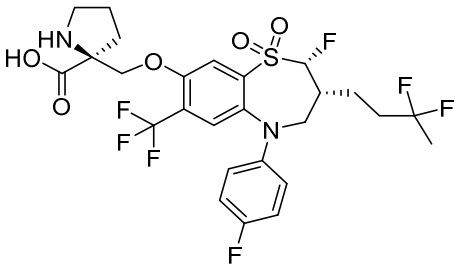
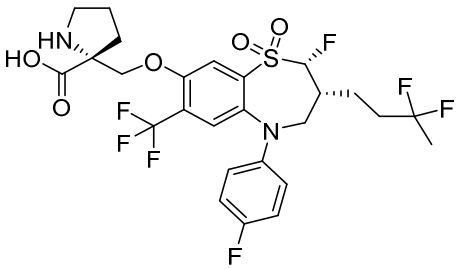
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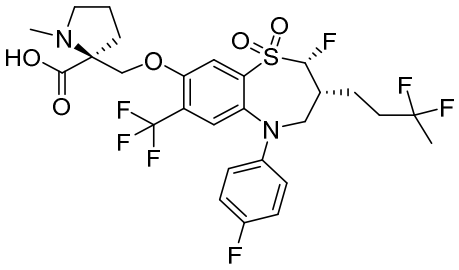
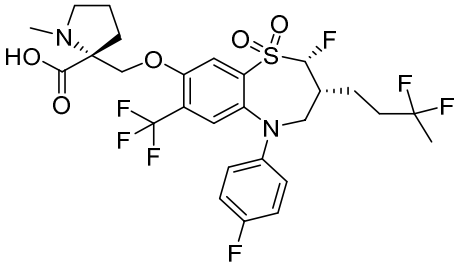
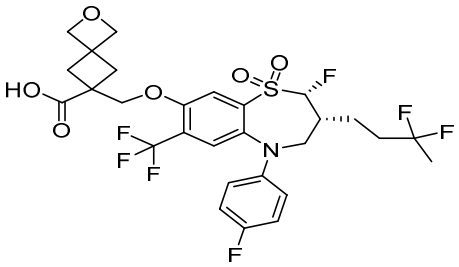
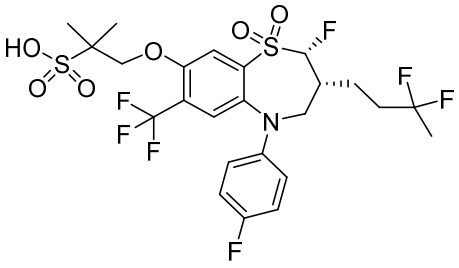
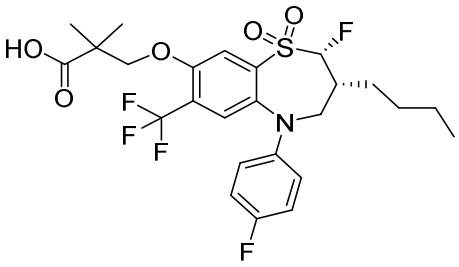
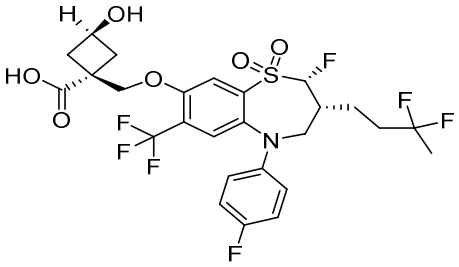
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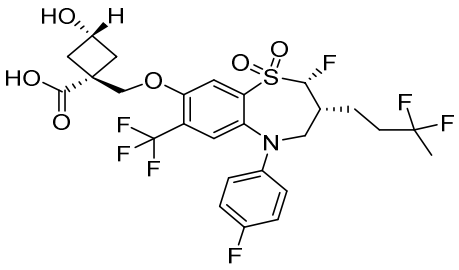
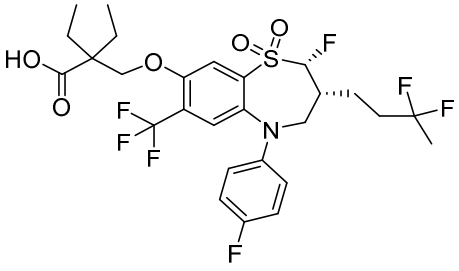
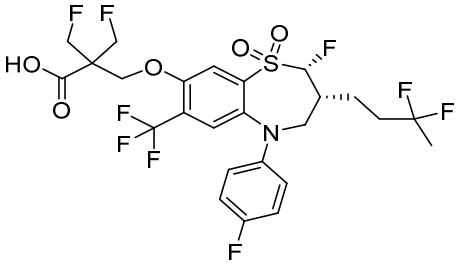
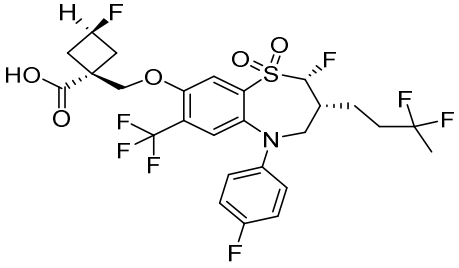
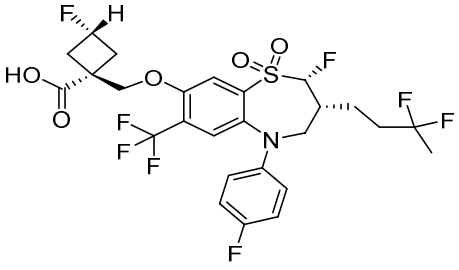
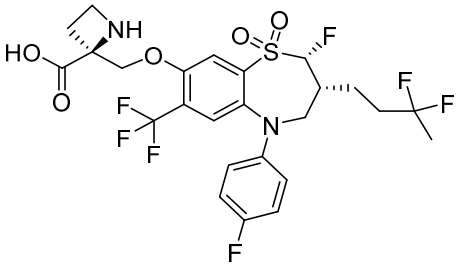
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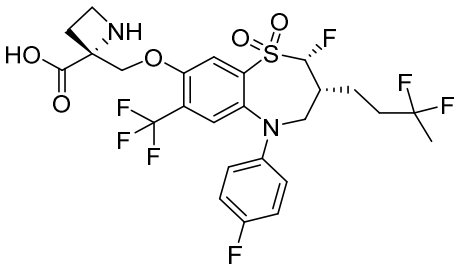
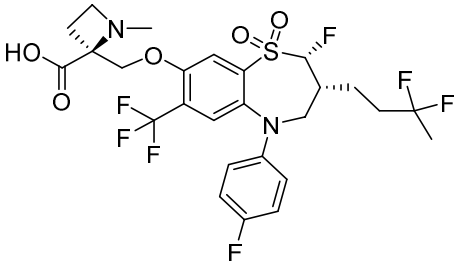
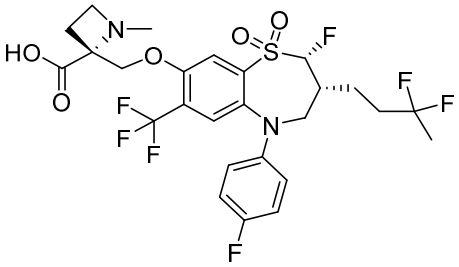
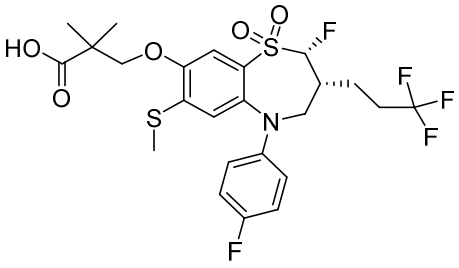
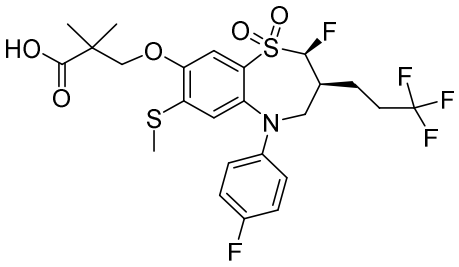
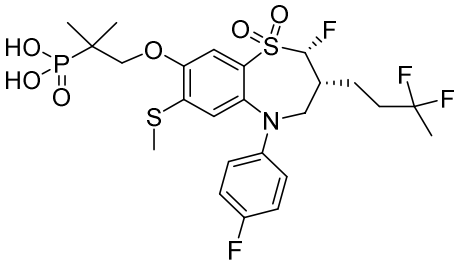
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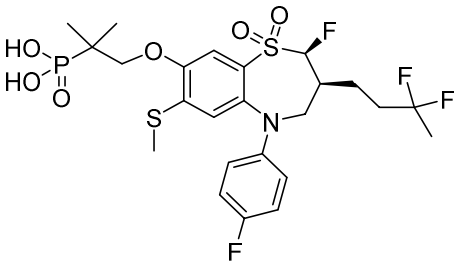
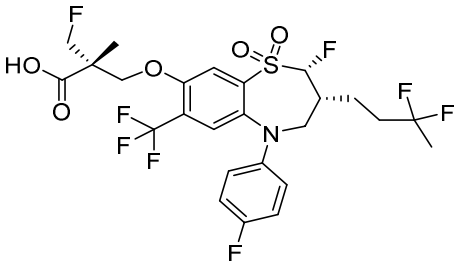
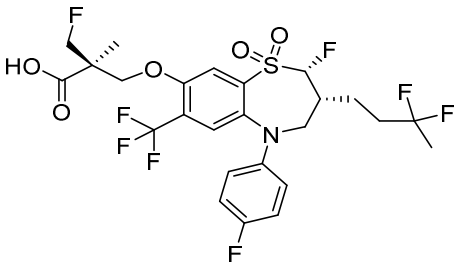
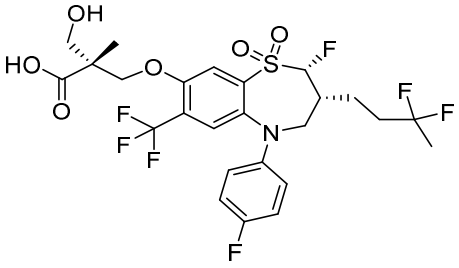
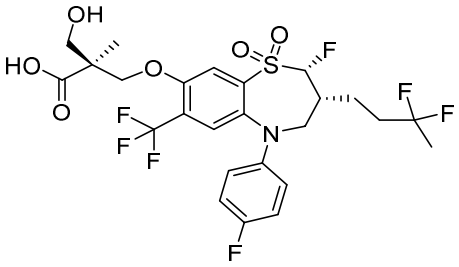
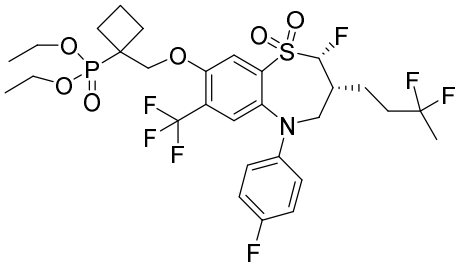
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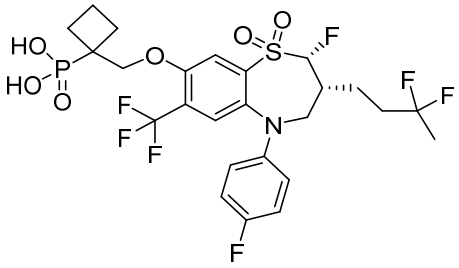
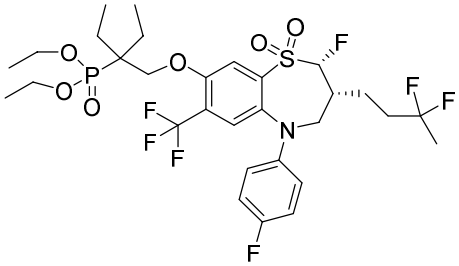
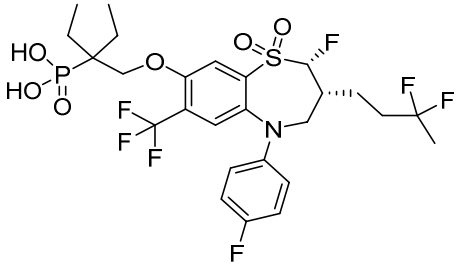
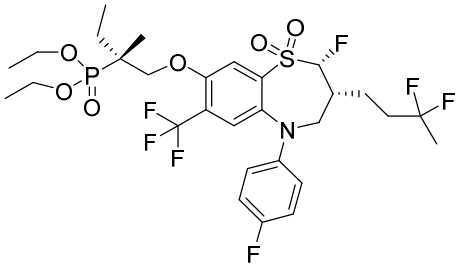
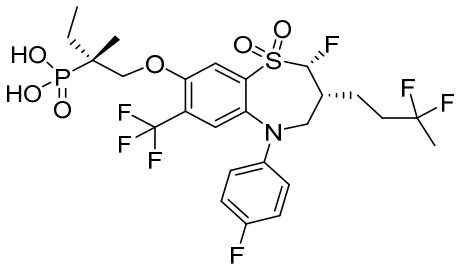
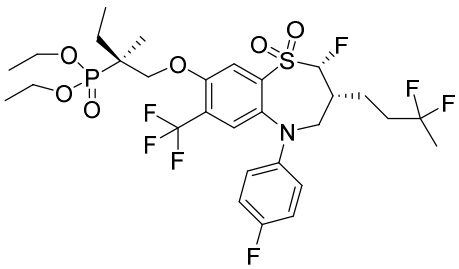
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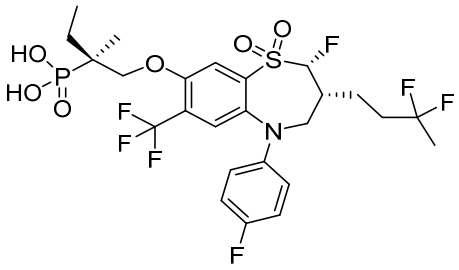
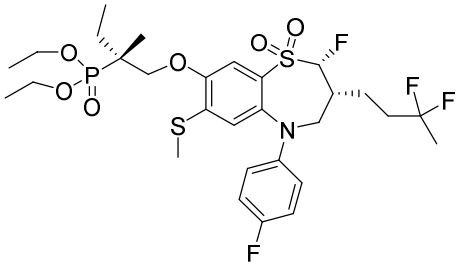
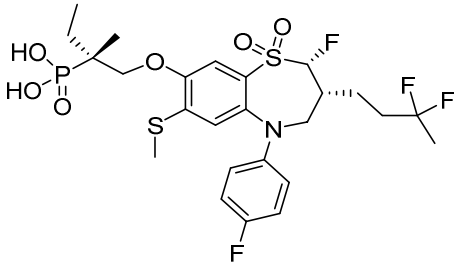
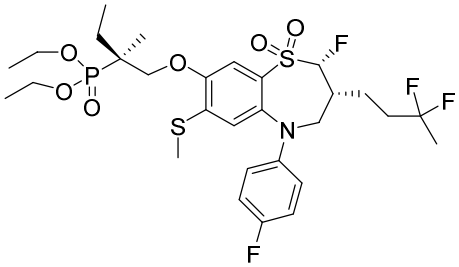
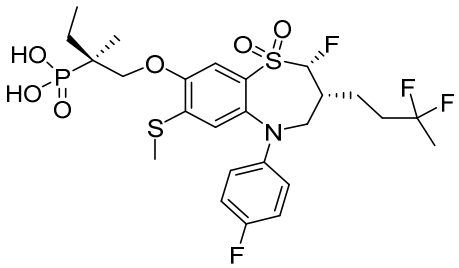
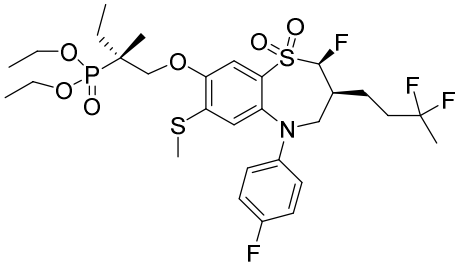
Example	Structure
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516	 ,

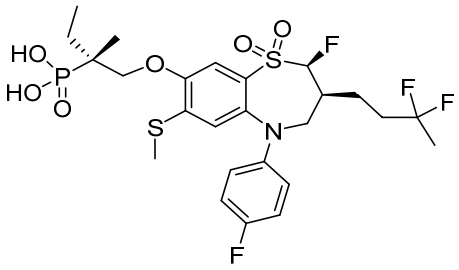
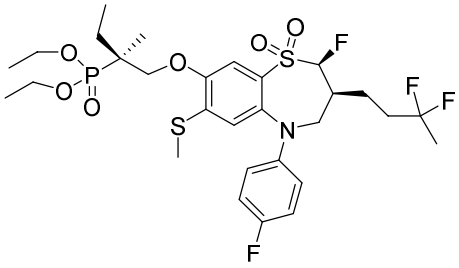
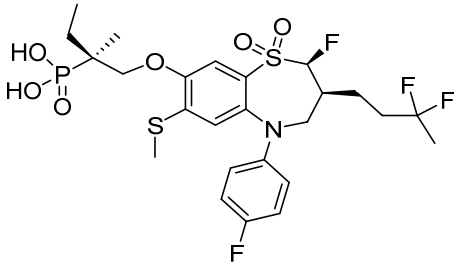
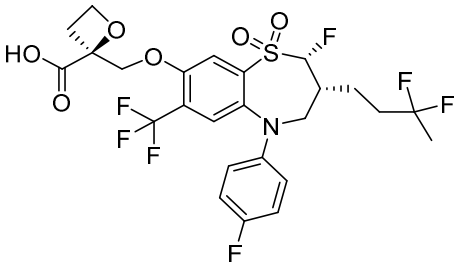
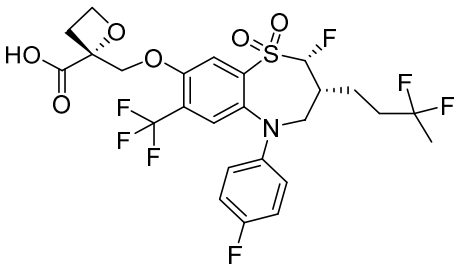
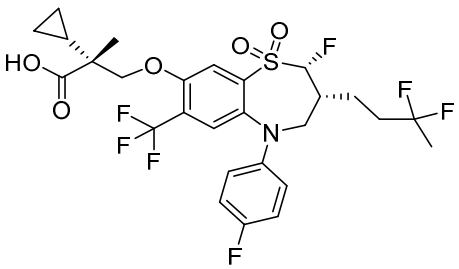
Example	Structure
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518	 ,
519	 ,
520	 ,
521	 ,
522	 ,

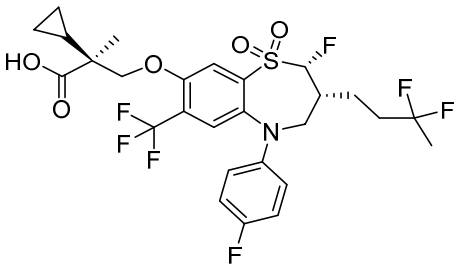
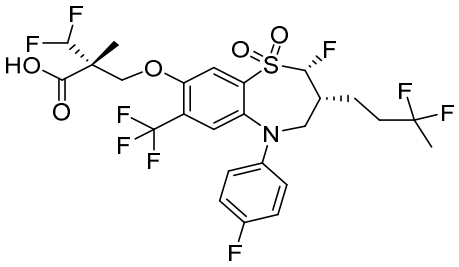
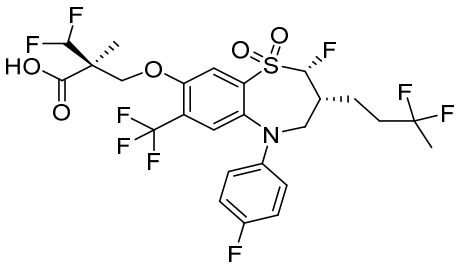
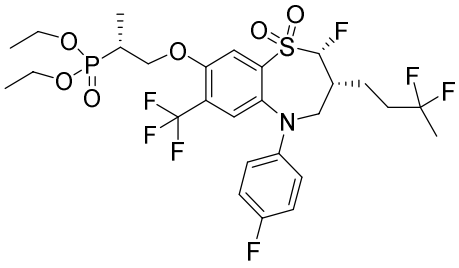
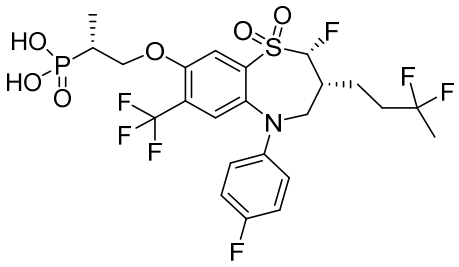
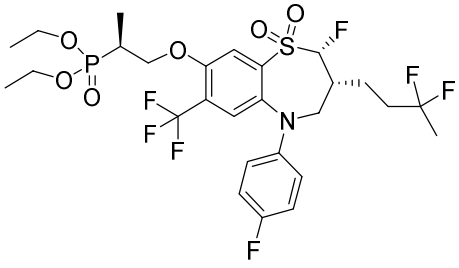
Example	Structure
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524	 ,
525	 ,
526	 ,
527	 ,
528	 ,

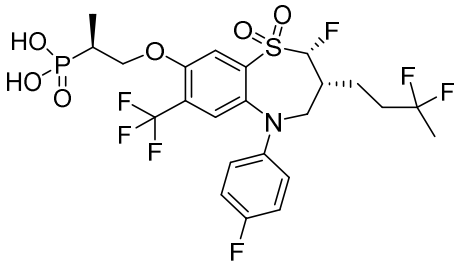
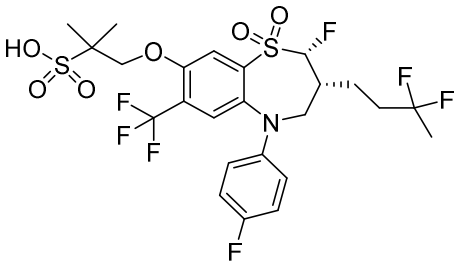
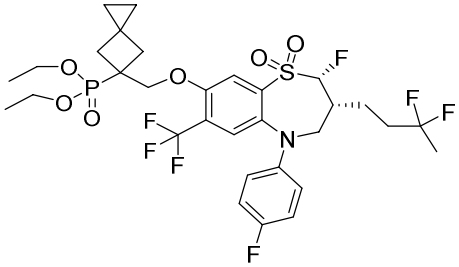
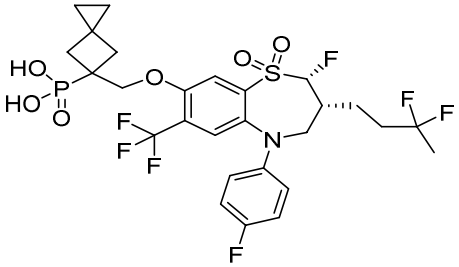
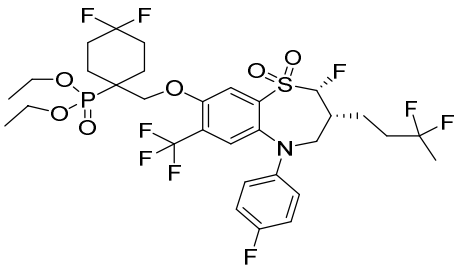
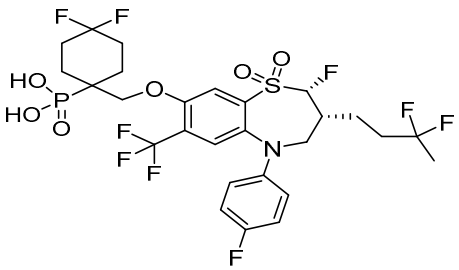
Example	Structure
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530	 ,
531	 ,
532	 ,
533	 ,
534	 ,

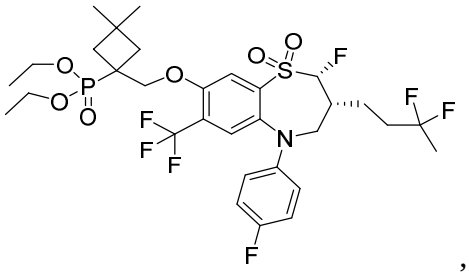
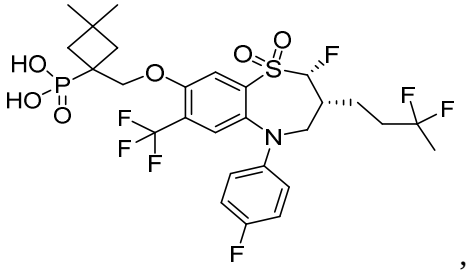
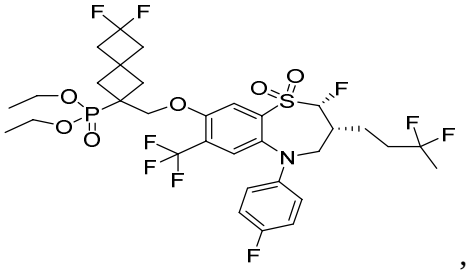
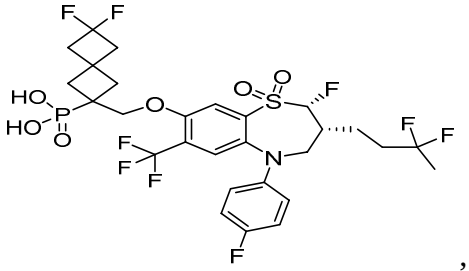
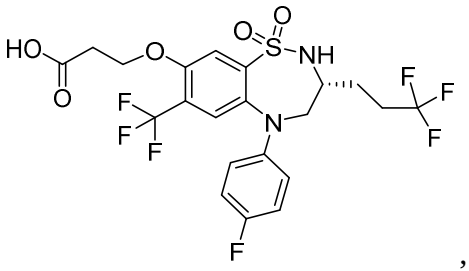
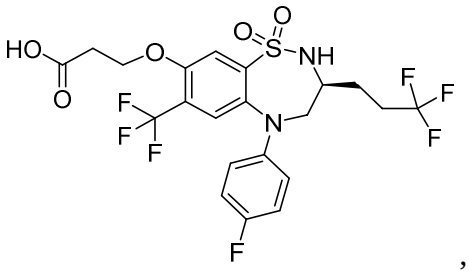
Example	Structure
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536	 ,
537	 ,
538	 ,
539	 ,
540	 ,

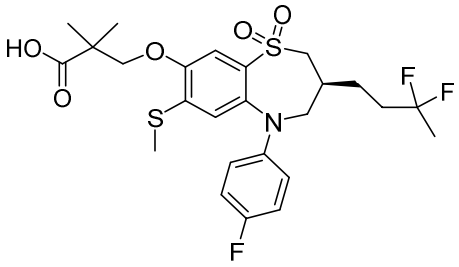
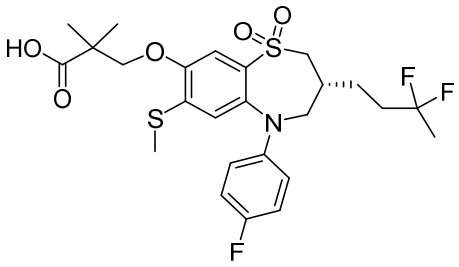
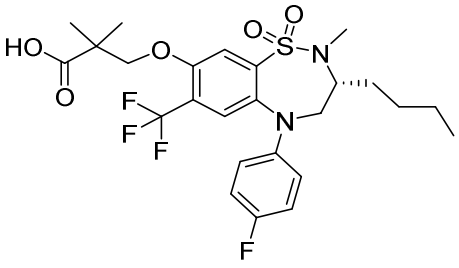
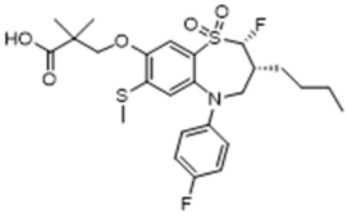
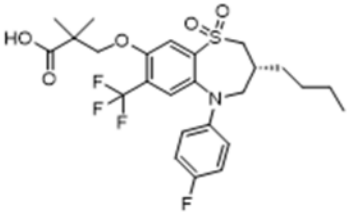
Example	Structure
541	 ,
542	 ,
543	 ,
544	 ,
545	 ,
546	 ,

Example	Structure
547	 ,
548	 ,
549	 ,
550	 ,
551	 ,
552	 ,

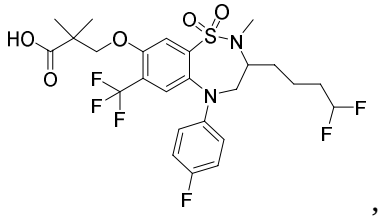
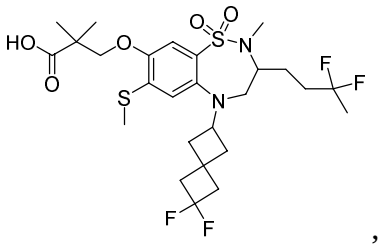
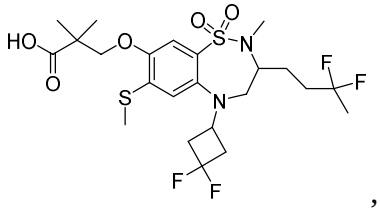
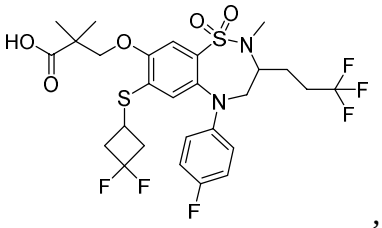
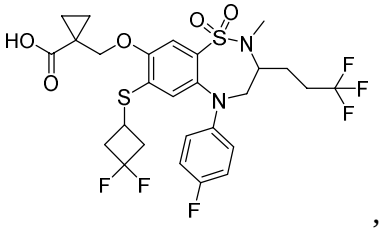
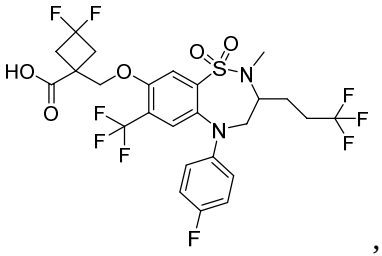
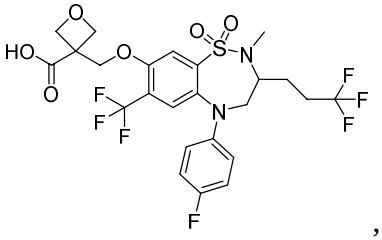
Example	Structure
553	 ,
554	 ,
555	 ,
556	 ,
557	 ,
558	 ,

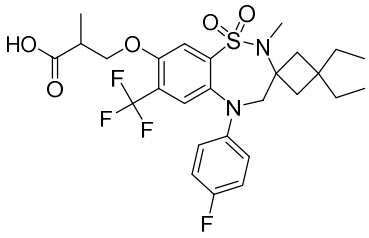
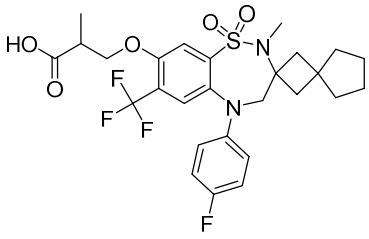
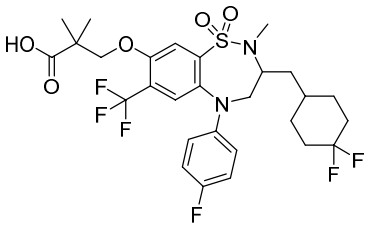
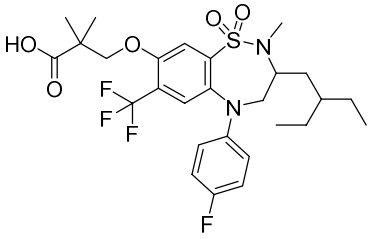
Example	Structure
559	 ,
560	 ,
561	 ,
562	 ,
563	 ,
564	 ,

Example	Structure
565	 ,
566	 ,
567	 ,
568	 ,
569	 ,
570	 ,

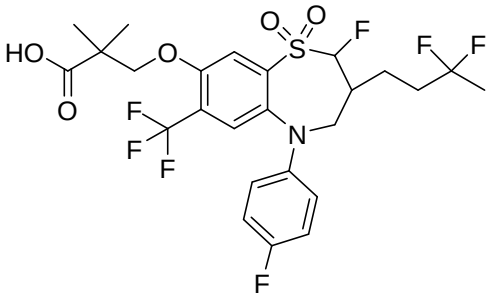
Example	Structure
571	 ,
572	 ,
573	 ,
574	 , or
575	 .

29. A compound, or a pharmaceutically acceptable salt thereof, wherein the compound is:

Example	Structure
285	 ,
305	 ,
318	 ,
334	 ,
337	 ,
342	 ,
345	 ,

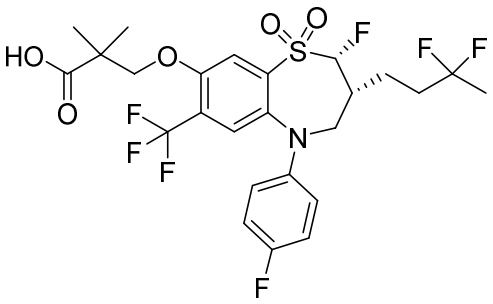
Example	Structure
353	 ,
356	 ,
433	 , or
436	 .

30. A compound

 ,

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

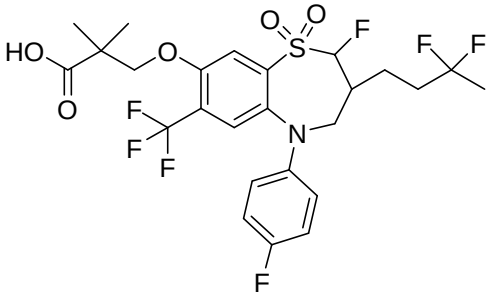
31. A compound



,

or a pharmaceutically acceptable salt thereof.

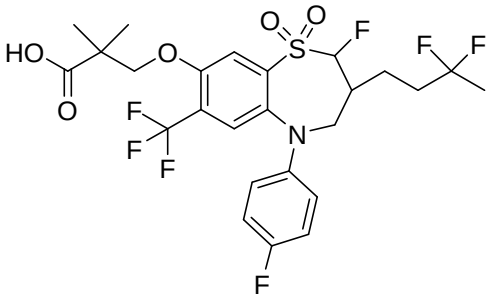
32. A compound



,

or a stereoisomer thereof.

33. A compound



.

34. A pharmaceutical composition comprising a compound according to any one of claims 1-27, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

35. Use of a compound according to any one of claims 1-27, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

36. Use of a pharmaceutical composition of claim 34 in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

37. Use of a compound according to any one of claims 1-27, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

38. Use of a pharmaceutical composition of claim 28, in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

39. Use of a compound according to any one of claims 1-27, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating HBV/HDV coinfection.

40. Use of a pharmaceutical composition of claim 34, in the manufacture of a medicament for treating HBV/HDV coinfection.

41. A compound according to any one of claims 1-27, or a pharmaceutically acceptable salt thereof, for use in therapy.

42. A compound according to any one of claims 1-27, or a pharmaceutically acceptable salt thereof, for use as a medicament.

43. A pharmaceutical composition comprising a compound according to claim 28 or claim 29, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

44. Use of a compound of claim 28 or claim 29, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

45. Use of a pharmaceutical composition of claim 43 in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

46. Use of a therapeutically effective amount of a compound of claim 28 or claim 29, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

47. Use of a therapeutically effective amount of a pharmaceutical composition of claim 43 in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

48. Use of a compound of claim 28 or claim 29, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating HBV/HDV coinfection.

49. Use of a pharmaceutical composition of claim 43 in the manufacture of a medicament for treating HBV/HDV coinfection.

50. A compound according to claim 28 or claim 29, or a pharmaceutically acceptable salt thereof, for use in therapy.

51. A compound according to claim 28 or claim 29, or a pharmaceutically acceptable salt thereof, for use as a medicament.

52. A pharmaceutical composition comprising a compound according to claim 30 or claim 31, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

53. Use of a compound of claim 30 or claim 31, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

54. Use of a pharmaceutical composition of claim 52 in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

55. Use of a compound of claim 30 or claim 31, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

56. Use of a pharmaceutical composition of claim 52 in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

57. Use of a compound of claim 30 or claim 31, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating HBV/HDV coinfection.

58. Use of a pharmaceutical composition of claim 52 in the manufacture of a medicament for treating HBV/HDV coinfection.

59. A compound according to claim 30 or claim 31, or a pharmaceutically acceptable salt thereof, for use in therapy.

60. A compound according to claim 30 or claim 31, or a pharmaceutically acceptable salt thereof, for use as a medicament.

61. A pharmaceutical composition comprising a compound according to claim 32 or claim 33 and a pharmaceutically acceptable excipient.

62. Use of a compound of claim 32 or claim 33 in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

63. Use of a pharmaceutical composition of claim 61 in the manufacture of a medicament for treating Hepatitis B (HBV) infection.

64. Use of a compound of claim 32 or claim 33 in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

65. Use of a pharmaceutical composition of claim 61 in the manufacture of a medicament for treating Hepatitis D (HDV) infection.

66. Use of a compound of claim 32 or claim 33, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating HBV/HDV coinfection.

67. Use of a pharmaceutical composition of claim 61 in the manufacture of a medicament for treating HBV/HDV coinfection.

68. A compound according to claim 32 or claim 33 for use in therapy.

69. A compound according to claim 32 or claim 33 for use as a medicament.