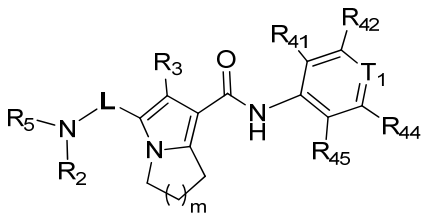
CLAIMS

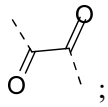
1. A compound of formula (Ⅱ) or a pharmaceutically acceptable salt thereof,



(Ⅱ)

wherein,

m is 1;

L is selected from  ;

T_1 is selected from the group consisting of N and C (R_{43});

R_2 is selected from the group consisting of H and C_{1-6} alkyl, wherein the C_{1-6} alkyl is optionally substituted by 1, 2, or 3 R_b;

R_3 is selected from the group consisting of Cl, F, Br, I, OH, NH_2, C_{1-6} alkyl, and C_{1-3} alkoxy, wherein the C_{1-6} alkyl and the C_{1-3} alkoxy are optionally substituted by 1, 2, or 3 R_c;

R_{41}, R_{42}, R_{43}, R_{44}, and R_{45} are each independently selected from the group consisting of H, Cl, F, Br, I, OH, NH_2, CN, COOH, and C_{1-3} alkyl, wherein the C_{1-3} alkyl is optionally substituted by 1, 2, or 3 R_d;

R_5 is selected from the group consisting of R_{51}, C_{3-10} cycloalkyl, and 3-6 membered heterocycloalkyl, wherein the C_{3-10} cycloalkyl and the 3-6 membered heterocycloalkyl are optionally substituted by 1, 2, or 3 R_1;

R_{51} is selected from the group consisting of C_{1-10} alkyl and C_{1-6} heteroalkyl, wherein the C_{1-10} alkyl and the C_{1-6} heteroalkyl are optionally substituted by 1, 2, or 3 R_e;

R_1 is each independently selected from the group consisting of H, Cl, F, Br, I, OH, NH_2, CN, COOH, C_{1-6} alkyl, -COO-C_{1-6} alkyl, and -C_{1-3} alkyl-COO-C_{1-6} alkyl, wherein the C_{1-6} alkyl, the -COO-C_{1-6} alkyl, and the -C_{1-3} alkyl-COO-C_{1-6} alkyl are optionally substituted by 1, 2, or 3 R_a;

R_a is each independently selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, COOH, C_{1-3} alkyl, and C_{1-3} alkoxy, wherein the C_{1-3} is optionally substituted by 1, 2, or 3 R;

R_b is each independently selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, and COOH;

R_c is each independently selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, COOH, and C_{1-3} alkyl, wherein the C_{1-3} is optionally substituted by 1, 2, or 3 R;

R_d is each independently selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, and COOH;

R_e is each independently selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, and COOH;

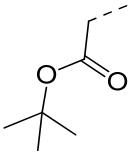
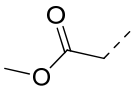
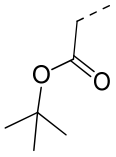
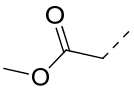
R is each independently selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, and COOH;

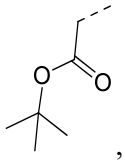
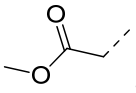
the C_{1-6} heteroalkyl and the 3-6 membered heterocycloalkyl each contain 1, 2, 3, or 4 heteroatoms or heteroatom groups independently selected from the group consisting of -NH-, -O-, -S-, and N.

2. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_a is selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, COOH, and $-OCH_3$.

3. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_c is selected from the group consisting of Cl, F, Br, I, OH, NH_2, CN, and COOH.

4. The compound or the pharmaceutically acceptable salt thereof according to claim 1 or 2, wherein R_1 is each independently selected from the group consisting of H, Cl, F, Br, I, OH, NH_2, CN, COOH, C_{1-3} alkyl, -COO-C_{1-3} alkyl, and -C_{1-3} alkyl-COO-C_{1-3} alkyl, wherein the C_{1-3} alkyl, the -COO-C_{1-3} alkyl, and the -C_{1-3} alkyl-COO-C_{1-3} alkyl are optionally substituted by 1, 2, or 3 R_a.

5. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_1 is each independently selected from the group consisting of H, Cl, F, Br, I, OH, NH_2, CN, COOH, CH_3, Et, , and , wherein the CH_3, the Et, , and the  are optionally substituted by 1, 2, or 3 R_a.

6. The compound or the pharmaceutically acceptable salt thereof according to claim 5, wherein R_1 is each independently selected from the group consisting of H, Cl, F, Br, I, OH, NH_2, CN, COOH, CH_3, CF_3, Et, -CH_2-COOH, -CH_2-OCH_3, -$(CH_2)_2$-COOH, , and .

7. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_2 is selected from the group consisting of H and C_{1-3} alkyl, wherein the C_{1-3} alkyl is optionally substituted by 1, 2, or 3 R_b.

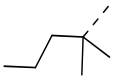
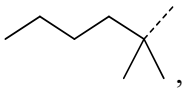
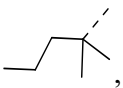
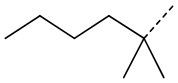
8. The compound or the pharmaceutically acceptable salt thereof according to claim 7, wherein R_2 is selected from the group consisting of H, CH_3, and Et.

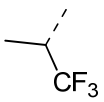
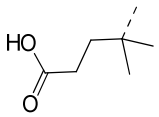
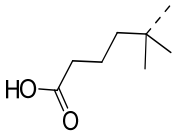
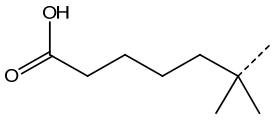
9. The compound or the pharmaceutically acceptable salt thereof according to claim 1 or 3, wherein R_3 is selected from the group consisting of Cl, F, Br, I, OH, NH_2, and C_{1-3} alkyl, wherein the C_{1-3} alkyl is optionally substituted by 1, 2, or 3 R_c.

10. The compound or the pharmaceutically acceptable salt thereof according to claim 9, wherein R_3 is selected from the group consisting of Cl, F, Br, I, OH, NH_2, CH_3, CF_3, and Et.

11. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_{41}, R_{42}, R_{43}, R_{44}, and R_{45} are each independently selected from the group consisting of H, Cl, F, Br, I, OH, NH_2, CN, and -COOH.

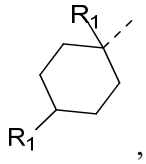
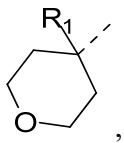
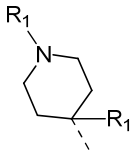
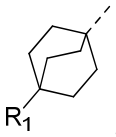
12. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_{51} is selected from the group consisting of C_{1-7} alkyl and C_{1-3} heteroalkyl, wherein the C_{1-7} alkyl and the C_{1-3} heteroalkyl are optionally substituted by 1, 2, or 3 R_e.

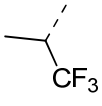
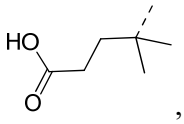
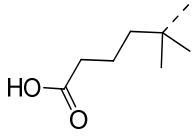
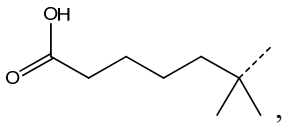
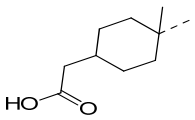
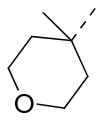
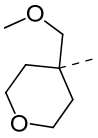
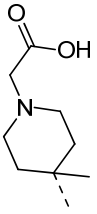
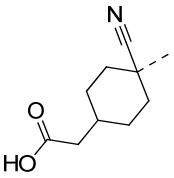
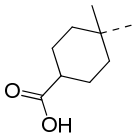
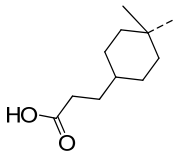
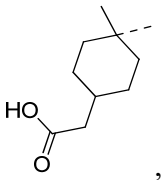
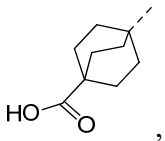
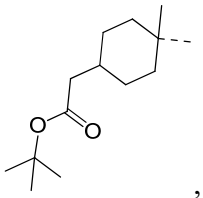
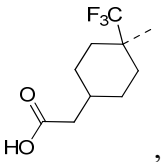
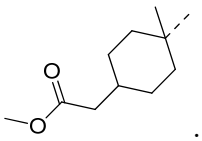
13. The compound or the pharmaceutically acceptable salt thereof according to claim 12, wherein R_{51} is selected from the group consisting of methyl, ethyl, propyl, isopropyl, , , and , wherein the methyl, the ethyl, the propyl, the isopropyl, the , the , and the  are optionally substituted by 1, 2, or 3 R_e.

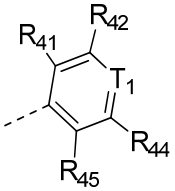
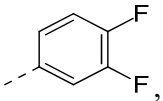
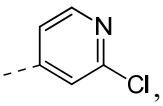
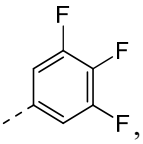
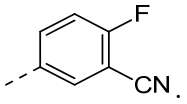
14. The compound or the pharmaceutically acceptable salt thereof according to claim 13, wherein R_{51} is selected from the group consisting of , , , and .

15. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_5 is selected from the group consisting of R_{51}, C_{3-8} cycloalkyl, and 5-6 membered heterocycloalkyl, wherein the C_{3-8} cycloalkyl and the 5-6 membered heterocycloalkyl are optionally substituted by 1, 2, or 3 R_1.

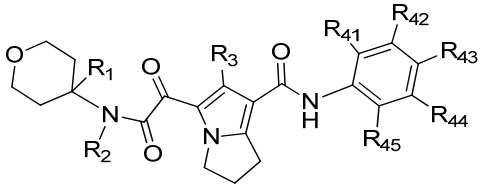
16. The compound or the pharmaceutically acceptable salt thereof according to claim 15, wherein R_5 is selected from the group consisting of R_{51}, cyclohexyl, tetrahydropyranyl, piperidinyl and bicyclo[2.2.2]octyl, wherein the cyclohexyl, the tetrahydropyranyl, the piperidinyl, and the bicyclo[2.2.2]octyl are optionally substituted by 1, 2, or 3 R_1.

17. The compound or the pharmaceutically acceptable salt thereof according to claim 16, wherein R_5 is selected from the group consisting of R_{51}, , , , and .

18. The compound or the pharmaceutically acceptable salt thereof according to claim 17, wherein R_5 is selected from the group consisting of , , , , , , , , , , , , , , , , and .

19. The compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein structural unit  is selected from the group consisting of , , , and .

20. The compound or the pharmaceutically acceptable salt thereof according to any one of claims 1 to 19, selected from the group consisting of



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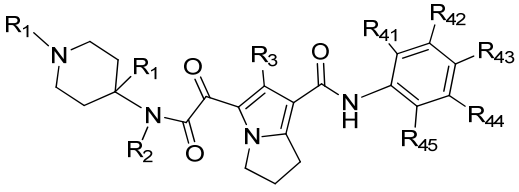
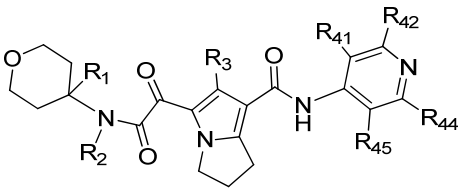
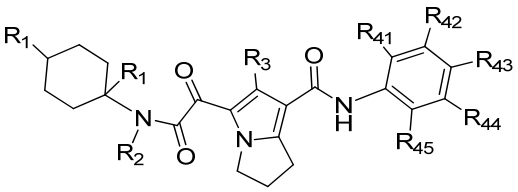


(II -1)



(II -2)



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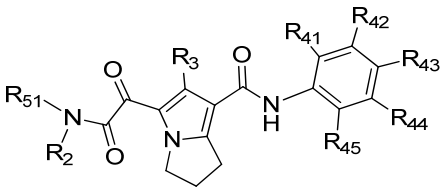

(II -4)

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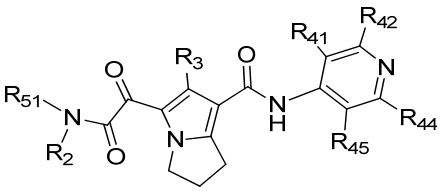

(II -5)

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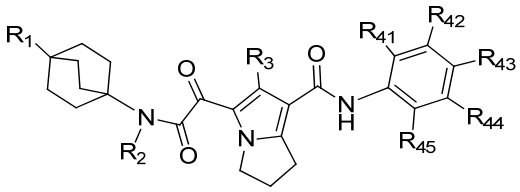


(III -1)

wherein,

R_1 is as defined in any one of claims 1, 2, and 4 to 6;

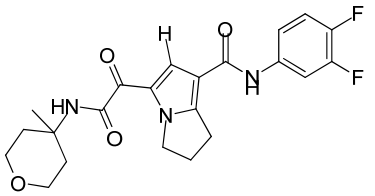
R_2 is as defined in any one of claims 1, 7, and 8;

R_3 is as defined in any one of claims 1, 3, and 9 to 10;

R_{41}, R_{42}, R_{43}, R_{44}, and R_{45} are as defined in claim 1 or 11;

R_{51} is as defined in any one of claims 1 and 12 to 14.

21. A compound of the following formula, a stereoisomer thereof or a pharmaceutically acceptable salt thereof: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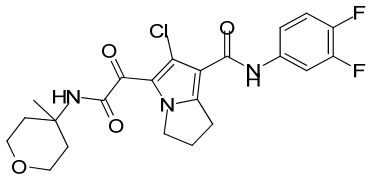
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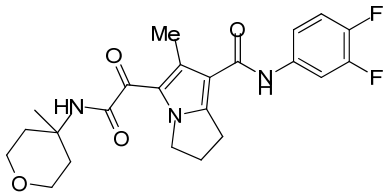
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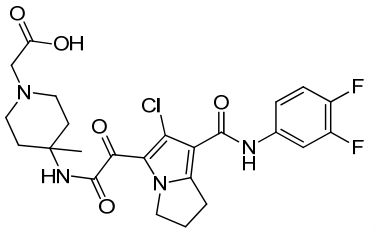
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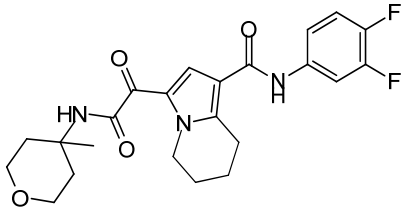
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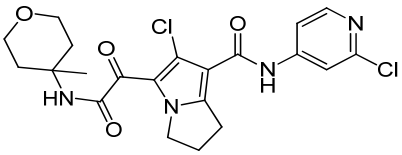
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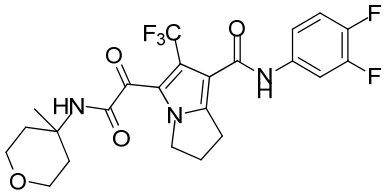
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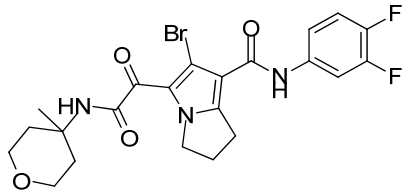
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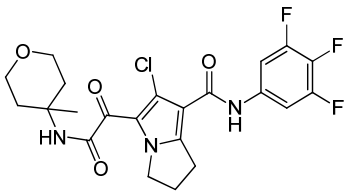
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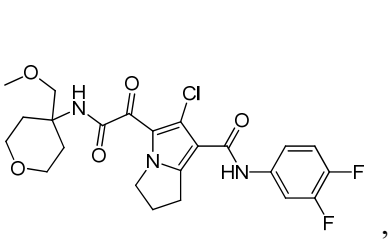
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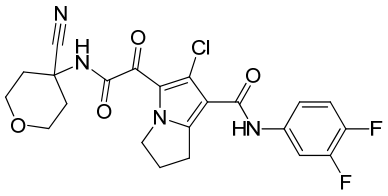
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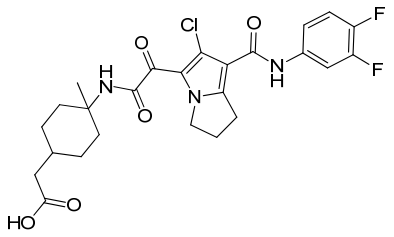
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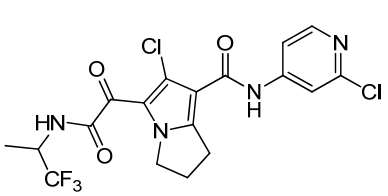
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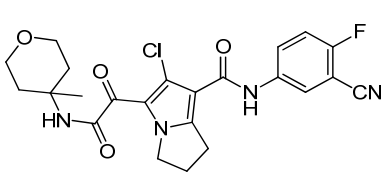
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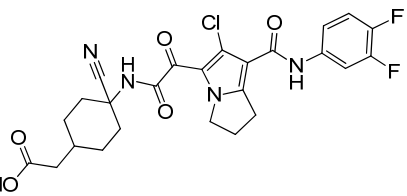
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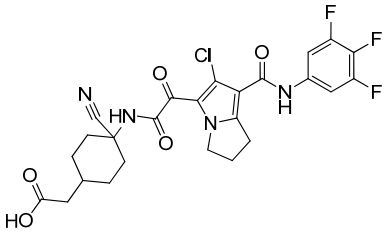
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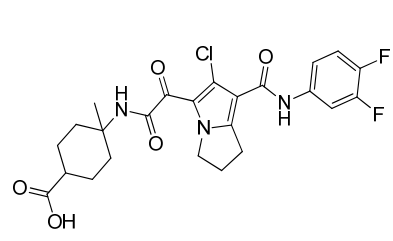
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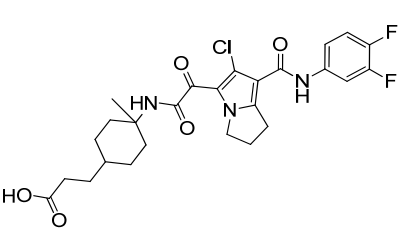
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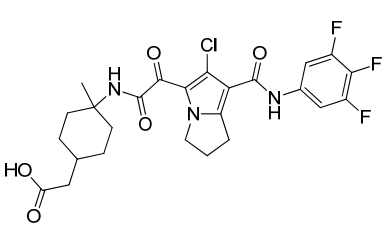
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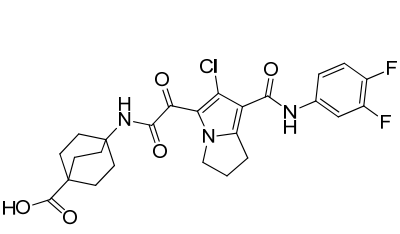
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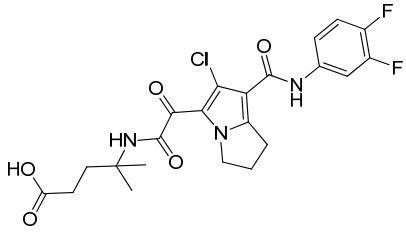
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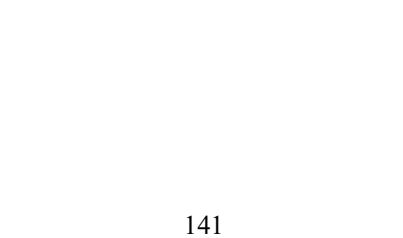
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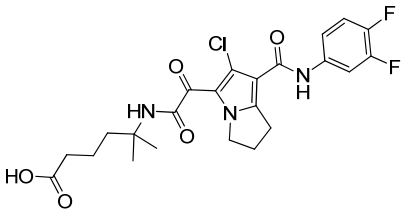
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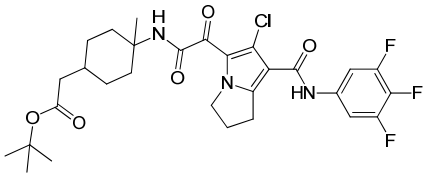
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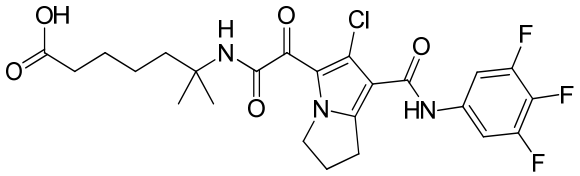
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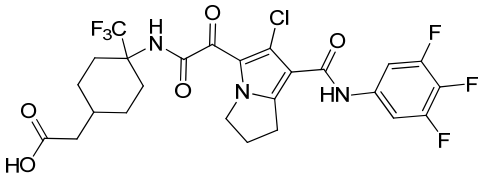
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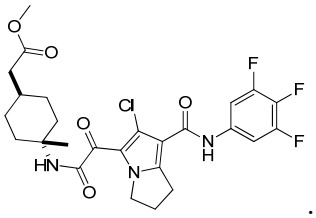
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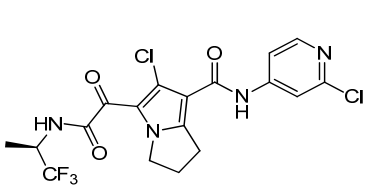
22. The compound, the stereoisomer thereof or the pharmaceutically acceptable salt thereof according to claim 21, selected from the group consisting of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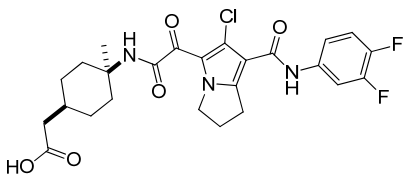
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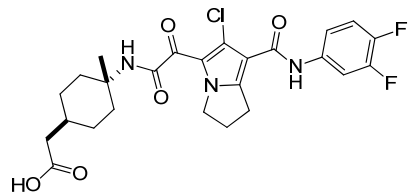
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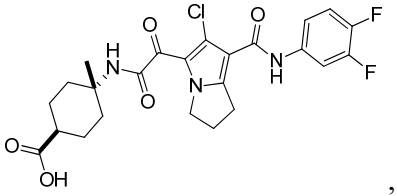
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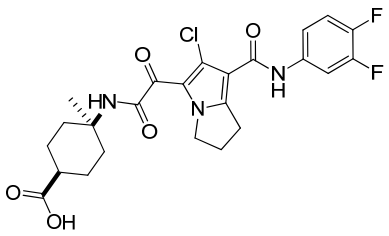
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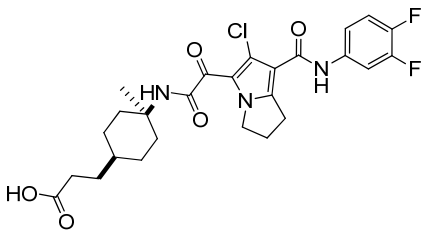
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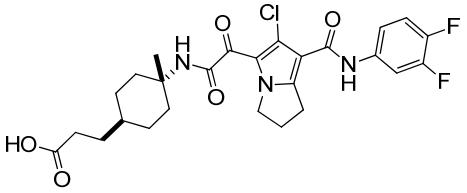
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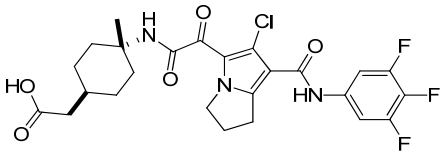
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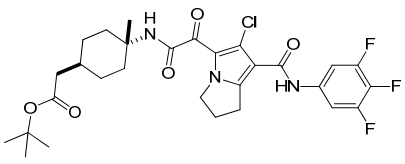
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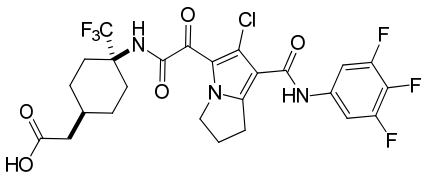
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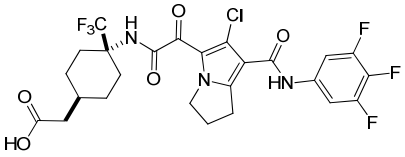
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23. A pharmaceutical composition, comprising the compound, the stereoisomer thereof or the pharmaceutically acceptable salt thereof according to any one of claims 1 to 22, and optionally further comprising a pharmaceutically acceptable carrier.

24. The compound, the stereoisomer thereof or the pharmaceutically acceptable salt thereof according to any one of claims 1 to 22 or the pharmaceutical composition according to claim 23 for use as a nucleoprotein inhibitor, wherein, optionally, the nucleoprotein inhibitor is a drug for use in treating or preventing diseases related to HBV infection.