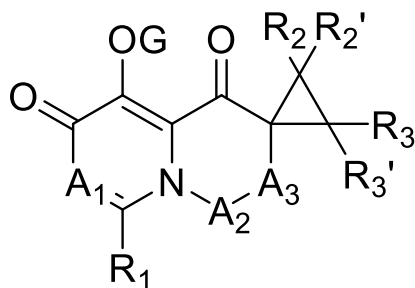


Claims

What is claimed is:

1. A compound having the following formula, or a pharmaceutically acceptable salt thereof,



wherein:

R_1 is hydrogen, deuterium, halogen, or C_{1-6} alkyl;

each of R_2 , R_2' , R_3 , and R_3' , independently, is hydrogen, deuterium, halogen, carboxyl, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkyloxycarbonyl, wherein the C_{1-6} alkyl is optionally substituted with C_{1-6} alkoxy or C_{1-6} alkoxy(C_{3-10} carbocyclyl)-methoxymethyl, or benzyloxymethyl;

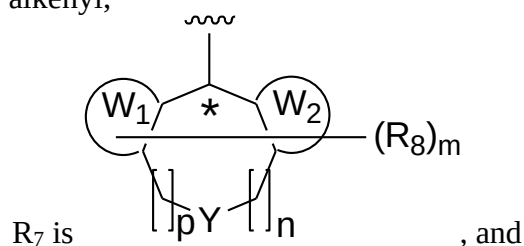
A_1 is CR_4 ;

A_2 is NR_7 ;

A_3 is $CR_5'R_6'$;

R_4 is hydrogen, deuterium, or halogen; and

each of R_5' , and R_6' , independently, is hydrogen, deuterium, halogen, C_{1-6} alkyl, or C_{2-6} alkenyl;



wherein:

each of W_1 and W_2 , independently, is phenyl;

Y is O or S;

R_8 is hydrogen, deuterium, halogen, hydroxyl, or C_{1-6} alkyl;

m is an integer of 1 to 5;

5 n is an integer of 0 to 1;

p is an integer of 0 to 1;

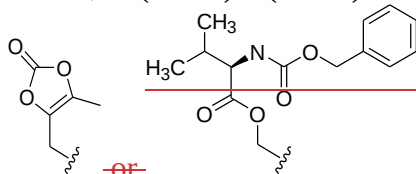
the star (*) indicates a chiral center; and

G is hydrogen, $-C(R_9R_9')-O-CO-R_{10}$, $-C(R_9R_9')-O-CO-O-R_{10}$, $-C(R_9R_9')-O-CO-$

$C(R_9R_9')-NR_{11}-CO-O-R_{10}$, $-C(R_9R_9')-C(R_9R_9')-O-CO-R_{10}$, $-C(R_9R_9')-R_{10}$, $-C(=O)-R_{10}$, -

10

$C(=O)-NR_{10}R_{11}$, ~~OR~~



~~OR~~

, and wherein each of R_9 , R_9' , and

R_{11} , independently, is hydrogen or C_{1-8} alkyl; R_{10} is C_{1-8} alkyl, C_{3-10} carbocyclyl, or C_{3-10} heterocyclyl in which 1 to 4 of the ring atoms is a heteroatom selected from the group consisting of O, N, and S.

15

2. The compound, or the pharmaceutically acceptable salt of claim 1, wherein R_1 is hydrogen, or C_{1-6} alkyl, and each of R_2 , R_2' , R_3 , and R_3' , independently, is hydrogen, carboxyl, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkyloxycarbonyl.

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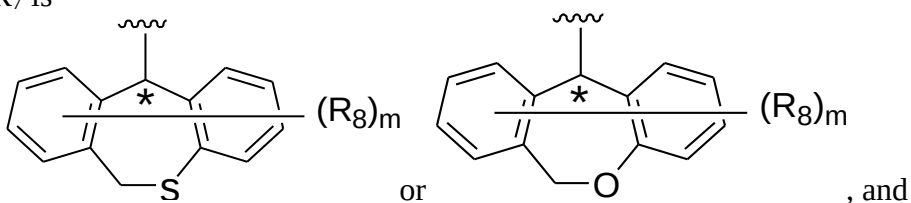
3. The compound, or the pharmaceutically acceptable salt of claim 1 or 2, wherein R_1 is hydrogen, or methyl, and each of R_2 , R_2' , R_3 , and R_3' , independently, is hydrogen, carboxyl, methyl, or ethyl.

4. The compound, or the pharmaceutically acceptable salt of any one of claims 1 to 3,

wherein R_4 is hydrogen; each of R_5' and R_6' , independently, is hydrogen, C_{1-6} alkyl, or C_{2-6} alkenyl.

5. The compound, or the pharmaceutically acceptable salt of any one of claims 1 to 4,

5 wherein R_7 is

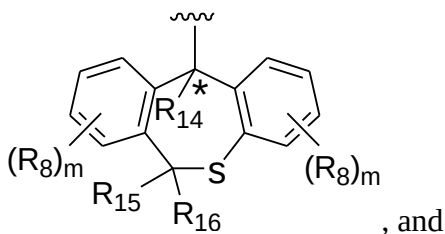


wherein:

R_8 is hydrogen, deuterium, fluoro, chloro, bromo, or methyl.

10 6. The compound, or the pharmaceutically acceptable salt of any one of claims 4 to 5,

wherein R_7 is



wherein m is 1, 2, or 3, and each of R_{14} , R_{15} and R_{16} , independently, is hydrogen or deuterium.

15

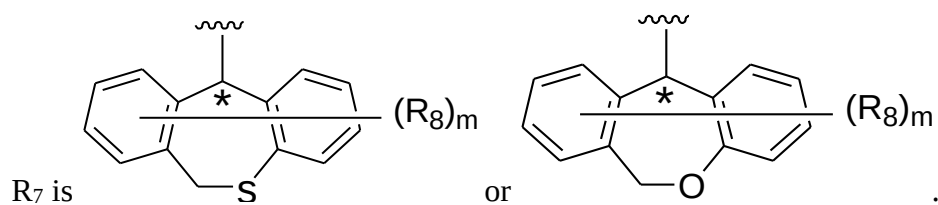
7. The compound, or the pharmaceutically acceptable salt of claim 1, wherein:

R_1 is hydrogen, deuterium, or C_{1-6} alkyl;

each of R_2 , R_2' , R_3 , and R_3' , independently, is hydrogen, deuterium, carboxyl, C_{1-6} alkyl, C_{1-6} alkoxy, or C_{1-6} alkyloxycarbonyl;

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each of R_5' and R_6' , independently, is hydrogen, deuterium, C_{1-6} alkyl, or C_{2-6} alkenyl; and



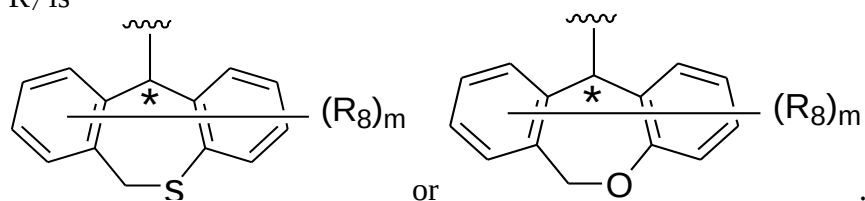
8. The compound, or the pharmaceutically acceptable salt of any one of claims 1 to 7, wherein:

5 R₁ is hydrogen or C₁₋₆ alkyl;
each of R₂, R₂', R₃, and R₃', independently, is hydrogen, carboxyl, C₁₋₆ alkyl, or C₁₋₆ alkoxy;

R₄ is hydrogen;

each of R₅' and R₆', independently, is hydrogen, C₁₋₆ alkyl, or C₂₋₆ alkenyl; and

10 R₇ is



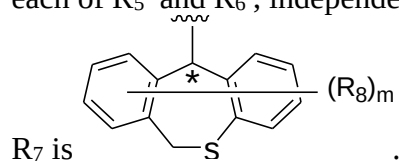
9. The compound, or the pharmaceutically acceptable salt of claim 1, wherein:

A₁ is CH;

15 R₁ is hydrogen or methyl;

each of R₂, R₂', R₃, and R₃', independently, is hydrogen, carboxyl, methyl, or ethyl;

each of R₅' and R₆', independently, is hydrogen, methyl, ethyl, or vinyl;

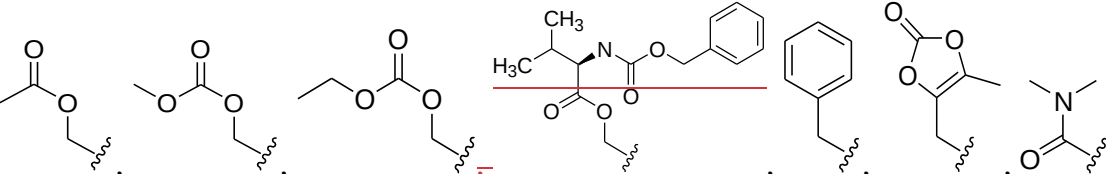


10. The compound, or the pharmaceutically acceptable salt of any one of claims 1 to 9, wherein the compound is one of the following compounds:

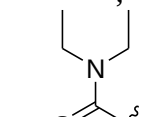
Compound 1	Compound 2	Compound 3	Compound 4
Compound 5	Compound 6	Compound 7	Compound 8
Compound 9	Compound 10	Compound 11	Compound 12
Compound 13	Compound 14	Compound 15	Compound 16

Compound 17	Compound 18	Compound 19	Compound 20
Compound 21	Compound 22	Compound 23	Compound 24
Compound 25	Compound 26	Compound 27	Compound 28
Compound 29	Compound 30	Compound 31	Compound 32
Compound 33	Compound 34	Compound 35	Compound 36

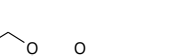
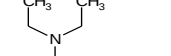
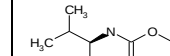
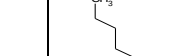
wherein G is selected from the group consisting of hydrogen,

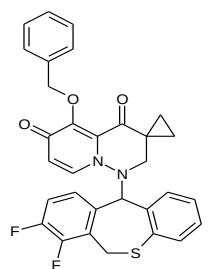
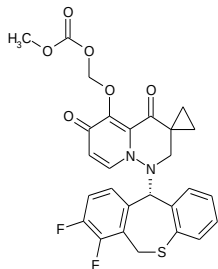
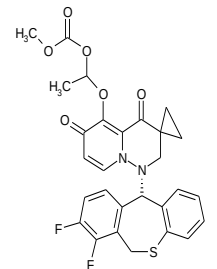
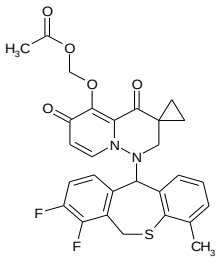
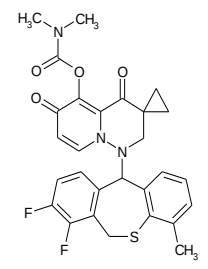
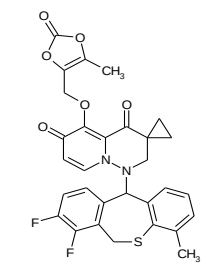
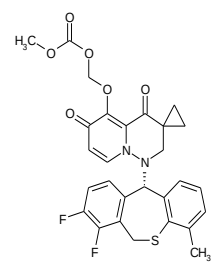
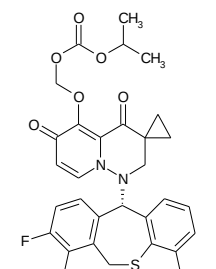
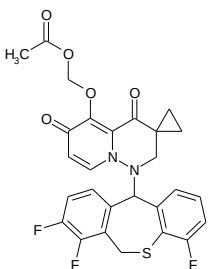
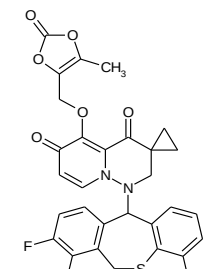
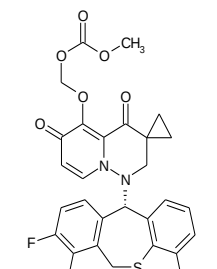
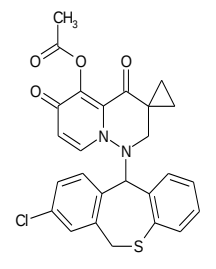
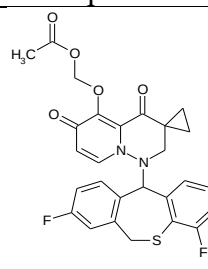
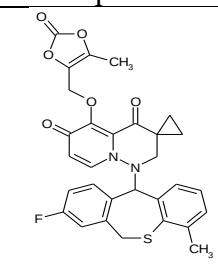
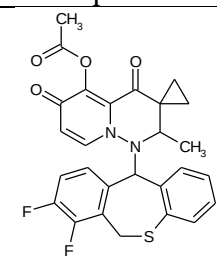
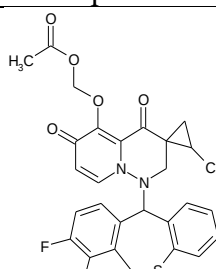


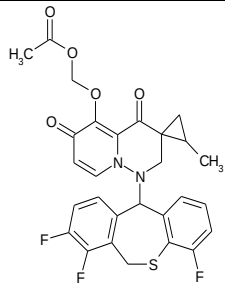
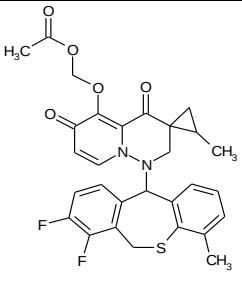
and



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Compound 40	Compound 41	Compound 42	Compound 43

			
Compound 44	Compound 45	Compound 46	Compound 47
			
Compound 48	Compound 49	Compound 50	Compound 51
			
Compound 52	Compound 53	Compound 54	Compound 55
			
Compound 56	Compound 57	Compound 58	Compound 59

		
Compound 60	Compound 61	

13. A pharmaceutical composition, comprising the compound, or the pharmaceutically acceptable salt of any one of claims 1 to 12, and a pharmaceutically acceptable carrier thereof.

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14. A use of an effective amount of the compound, or the pharmaceutically acceptable salt of any one of claims 1 to 12 or the pharmaceutical composition of claim 13 for the manufacture of a medicament for treating influenza.