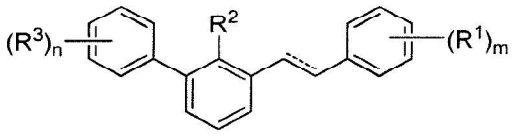
~~What is c~~Claim~~sed is:~~

1. A pharmaceutical composition comprising:

a PD-L1 antibody, and

a small-molecule PD-1/PD-L1 inhibitor or a pharmaceutically acceptable salt thereof;

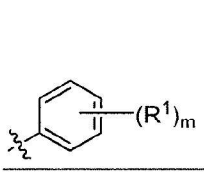
wherein the small-molecule PD-1/PD-L1 inhibitor is an aromatic vinyl or aromatic ethyl derivative represented by general formula (I), a pharmaceutically acceptable salt or a deuterated compound:



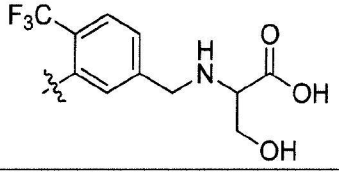
(I)

wherein,

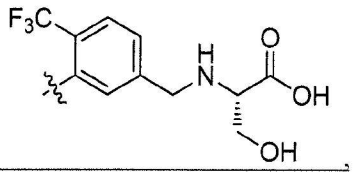
----- is a single bond or a double bond;



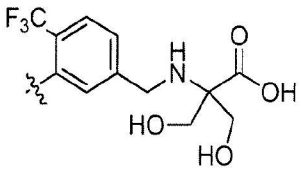
is



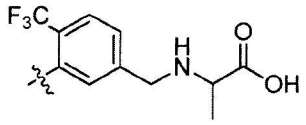
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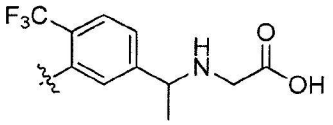
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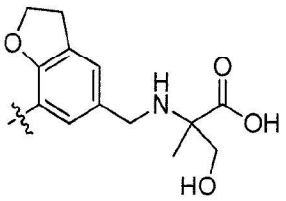
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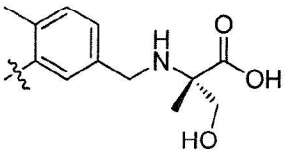
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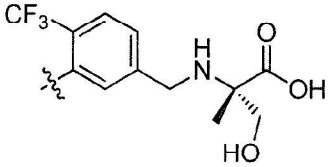
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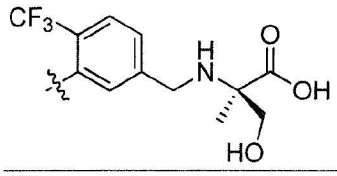
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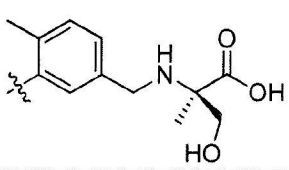
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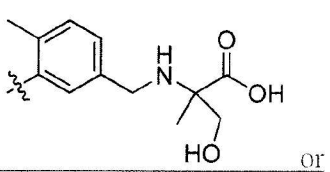
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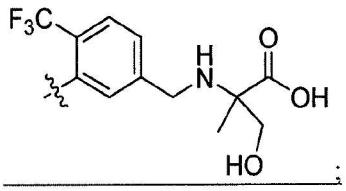
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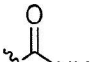
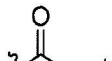


or



;

R^2 is unsubstituted C_1-C_4 alkyl or halogen;

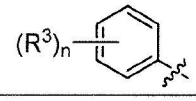
each of R^3 is identical or different, and is independently deuterium, halogen, substituted or unsubstituted alkylthio, substituted or unsubstituted hydroxyl, substituted or unsubstituted amino, substituted or unsubstituted alkyl, substituted or unsubstituted alkoxy,  or , wherein, R^{1a} is C_1-C_4 alkyl, or two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring; in the heterocarbocyclic ring, the heteroatom(s) is(are) oxygen and/or nitrogen, and the number of the heteroatom(s) is 1 to 4; when two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring, then the carbocyclic ring or heterocarbocyclic ring is further substituted by one or more than one C_{1-4} alkyl;

the substituent(s) in the substituted alkyl in each of R^3, the substituent(s) in the substituted alkoxy in each of R^3, and the substituent(s) in the substituted alkylthio in each of R^3 are one or more selected from halogen, C_{1-4} alkyl, hydroxyl, , C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group; when there are more substituents than one, then the substituents are identical or different; R^a and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from halogen, C_1-C_4 alkyl, hydroxyl, , C_1-C_4 alkoxy, C_1-C_4 carboxyl, C_1-C_4 ester group and C_1-C_4 amide group; R^{a1} and R^{b1} are independently hydrogen or C_1-C_4 alkyl;

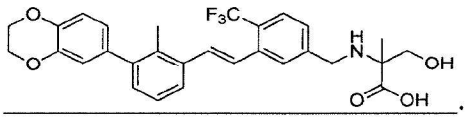
in each of R^3, the substituent(s) in the substituted hydroxyl or the substituted amino is(are) one or more selected from C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group;

n is 0, 1, 2, 3;4 or 5,

or in the aromatic vinyl or aromatic ethyl derivative represented by general

formula (I),  is replaced by a substituted or unsubstituted heteroaromatic ring, in the heteroaromatic ring, the heteroatom(s) is(are) selected from nitrogen, oxygen and sulfur, and the number of the heteroatom(s) is 1 to 4; the substituent(s) in the substituted heteroaromatic ring is(are) one or more selected from halogen, C_{1-4} alkyl, hydroxyl, , C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group; when there are more substituents than one, then the substituents are identical or different; R^a and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from halogen, C_1-C_4 alkyl, hydroxyl, , C_1-C_4 alkoxy, C_1-C_4 carboxyl, C_1-C_4 ester group and C_1-C_4 amide group; R^{a1} and R^{b1} are independently hydrogen or C_1-C_4 alkyl;

the aromatic vinyl or aromatic ethyl derivative represented by general formula (I) excludes the compound:

.

2. The pharmaceutical composition of claim 1, wherein the PD-L1 antibody is one or more selected from Atezolizumab, Durvalumab, Avelumab, Cemiplimab, KN035, CS1001, MBS2311, BGB-A333, KL-A167, SHR-1316 and STI-A1014.

3. The pharmaceutical composition of claim 2, wherein the PD-L1 antibody is Durvalumab.

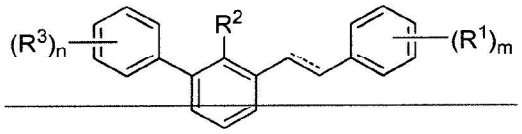
4. The pharmaceutical composition of any one of claims 1-3, wherein ~~the small-molecule PD-1/PD-L1 inhibitor is an aromatic vinyl or aromatic ethyl derivative, a pharmaceutically acceptable salt, a deuterated compound, a metabolite, a metabolic precursor or a prodrug thereof;~~

~~and/or, the small-molecule PD-1/PD-L1 inhibitor has a molecular weight of less than 1500 daltons;~~

~~and/or,~~ the small-molecule PD-1/PD-L1 inhibitor has an IC_{50} value of less than 100 nM in the PD-1/PD-L1 binding experiments;

and/or, the small-molecule PD-1/PD-L1 inhibitor binds to PD-L1.

~~5. The pharmaceutical composition of any one of claims 1-4, wherein the the small-molecule PD-1/PD-L1 inhibitor is an aromatic vinyl or aromatic ethyl derivative represented by general formula (I), a pharmaceutically acceptable salt, a deuterated compound, a metabolite, a metabolic precursor or a prodrug thereof:~~



~~(I)~~

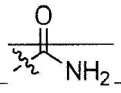
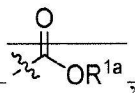
~~wherein,~~

~~=====~~ ~~is a single bond or a double bond;~~

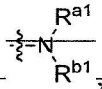
~~each of R^1 is identical or different, and is independently deuterium, halogen, substituted or unsubstituted hydroxyl, substituted or unsubstituted amino, substituted or unsubstituted alkyl, or substituted or unsubstituted alkoxy;~~

~~or two adjacent R^1 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring; in the heterocarbocyclic ring, the heteroatom(s) is(are) oxygen and/or nitrogen, and the number of the heteroatom(s) is 1 to 4;~~

~~R^2 is substituted or unsubstituted alkyl or halogen;~~

~~each of R^3 is identical or different, and is independently deuterium, halogen, substituted or unsubstituted alkylthio, substituted or unsubstituted hydroxyl, substituted or unsubstituted amino, substituted or unsubstituted alkyl, substituted or unsubstituted alkoxy,~~  ~~or~~ ~~, wherein, R^{1a} is C_1-C_4 alkyl, or two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring; in the heterocarbocyclic ring, the heteroatom(s) is(are) oxygen and/or nitrogen, and the number of the heteroatom(s) is 1 to 4; when two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring, then the carbocyclic ring or~~

heterocarbocyclic ring is further substituted by one or more than one C_{1-4} alkyl;

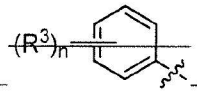
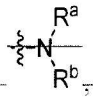
the substituent(s) in the substituted alkyl in each of R^1, R^2 and each of R^3, the substituent(s) in the substituted alkoxy in each of R^1 and each of R^3, and the substituent(s) in the substituted alkylthio in each of R^3 are one or more selected from halogen, C_{1-4} alkyl, hydroxyl, , C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group; when there are more substituents than one, then the substituents are identical or different; R^a and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from halogen, C_1-C_4 alkyl, hydroxyl, , C_1-C_4 alkoxy, C_1-C_4 carboxyl, C_1-C_4 ester group and C_1-C_4 amide group; R^{a1} and R^{b1} are independently hydrogen or C_1-C_4 alkyl;

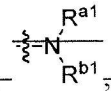
in each of R^1 or R^3, the substituent(s) in the substituted hydroxyl or the substituted amino is(are) one or more selected from C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group;

m is 1, 2, 3, 4 or 5;

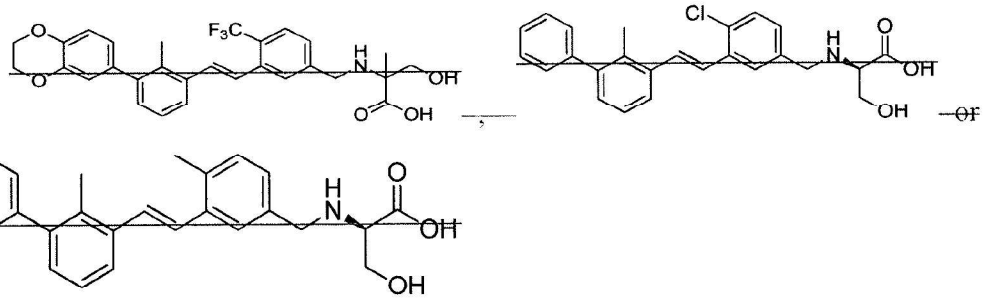
n is 0, 1, 2, 3, 4 or 5; when ===== is a double bond and m is 2, then two R^1 are located on ortho and meta positions of the phenyl, and the two R^1 are identical or different;

when ===== is a double bond and m is 3, then two of R^1 are adjacent, and the two adjacent R^1 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring;

or in the aromatic vinyl or aromatic ethyl derivative represented by general formula (I),  is replaced by a substituted or unsubstituted heteroaromatic ring, in the heteroaromatic ring, the heteroatom(s) is(are) selected from nitrogen, oxygen and sulfur, and the number of the heteroatom(s) is 1 to 4; the substituent(s) in the substituted heteroaromatic ring is(are) one or more selected from halogen, C_{1-4} alkyl, hydroxyl, , C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group; when there are more substituents than one, then the substituents are identical or different; R^a and R^b are independently hydrogen, or, substituted or

~~unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from halogen, C_1-C_4 alkyl, hydroxyl,~~  ~~, C_1-C_4 alkoxy, C_1-C_4 carboxyl, C_1-C_4 ester group and C_1-C_4 amide group; R^{a1} and R^{b1} are independently hydrogen or C_1-C_4 alkyl;~~

~~the aromatic vinyl or aromatic ethyl derivative represented by general formula (I) excludes the compound:~~



65. The pharmaceutical composition of claim ~~5~~1, wherein,

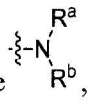
when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the heteroaromatic ring are halogen, then the halogen is F, Cl, Br or I;

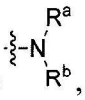
and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy, the substituted hydroxyl or the substituted amino in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, the substituent(s) in the substituted heteroaromatic ring, and the substituent(s) in the 5- to 7- membered heterocarbocyclic ring are C_1-C_4 alkyl, then the C_1-C_4 alkyl is methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl;

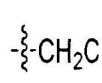
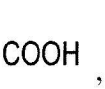
and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are , ~~and~~ R^a ~~or~~and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, when the substituent(s) in the substituted alkyl is halogen, then the halogen is F, Cl, Br or I;

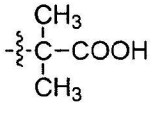
and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each

of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are , and R^a or R^b is C_1-C_4 alkyl, then the C_1-C_4 alkyl is methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl;

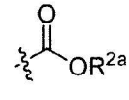
and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are , R^a or R^b is , ~~and~~ R^{a1} ~~or~~ and R^{b1} are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, when the substituent(s) in the substituted alkyl is C_1-C_4 alkyl, then the C_1-C_4 alkyl is methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl;

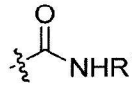
and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are , R^a and~~or~~ R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, when the substituent(s) in the substituted alkyl is C_1-C_4 alkoxy, then the C_{1-4} alkoxy is methoxy, ethoxy, *n*-propoxy, isopropoxy, *n*-butoxy, isobutoxy or *tert*-butoxy;

and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are , R^a ~~or~~ and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, when the substituent(s) in the substituted alkyl is C_1-C_4 carboxyl, then the C_{1-4} carboxyl is , , , , ,  or



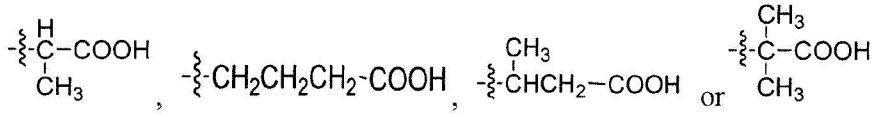
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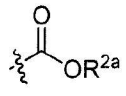
and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are , ~~and~~ R^a ~~or~~ and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, when the substituent(s) in the substituted alkyl is C_1-C_4 ester group, then the C_1-C_4 ester group is , and R^{2a} is methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl;

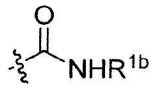
and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are , ~~and~~ R^a and~~or~~ R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, when the substituent(s) in the substituted alkyl is C_1-C_4 amide group, then the C_1-C_4 amide group is , and R^{1b} is hydrogen, methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl;

and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy, the substituted hydroxyl or the substituted amino in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are C_1-C_4 alkoxy, then the C_{1-4} alkoxy is methoxy, ethoxy, *n*-propoxy, isopropoxy, *n*-butoxy, isobutoxy or *tert*-butoxy;

and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy, the substituted hydroxyl or the substituted amino in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are C_1-C_4 carboxyl, then the C_{1-4} carboxyl is , , ,



and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy, the substituted hydroxyl or the substituted amino in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are C_1-C_4 ester group, then the C_1-C_4 ester group is , and R^{2a} is methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl;

and/or, when the substituent(s) in the substituted alkyl in ~~each of R^1, R^2 and~~ each of R^3, the substituent(s) in the substituted alkoxy, the substituted hydroxyl or the substituted amino in ~~each of R^1 and~~ each of R^3, the substituent(s) in the substituted alkylthio in each of R^3, and the substituent(s) in the substituted heteroaromatic ring are C_1-C_4 amide group, then the C_1-C_4 amide group is , and R^{1b} is hydrogen, methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl.

~~7~~6. The pharmaceutical composition of claim ~~5~~1, wherein,

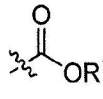
in each of ~~R^1, R^2~~ and each of R^3, the halogen is F, Cl, Br or I;

and/or, in ~~each of R^1, R^2 and~~ each of R^3, the substituted or unsubstituted alkyl is substituted or unsubstituted C_1-C_4 alkyl; the substituted or unsubstituted C_1-C_4 alkyl is preferably substituted or unsubstituted methyl, substituted or unsubstituted ethyl, substituted or unsubstituted *n*-propyl, substituted or unsubstituted isopropyl, substituted or unsubstituted *n*-butyl, substituted or unsubstituted isobutyl, or, substituted or unsubstituted *tert*-butyl;

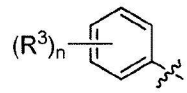
and/or, in ~~each of R^1 and~~ each of R^3, the substituted or unsubstituted alkoxy is substituted or unsubstituted C_1-C_4 alkoxy; the substituted or unsubstituted C_1-C_4 alkoxy is preferably substituted or unsubstituted methoxy, substituted or unsubstituted ethoxy, substituted or unsubstituted *n*-propoxy, substituted or unsubstituted isopropoxy, substituted or unsubstituted *n*-butoxy, substituted or unsubstituted isobutoxy, or, substituted or unsubstituted *tert*-butoxy;

and/or, in each of R^3, the substituted or unsubstituted alkylthio is -S-R^s, wherein, R^s is substituted or unsubstituted C_1-C_4 alkyl; the substituted or unsubstituted C_1-C_4

alkyl is preferably substituted or unsubstituted methyl, substituted or unsubstituted ethyl, substituted or unsubstituted *n*-propyl, substituted or unsubstituted isopropyl, substituted or unsubstituted *n*-butyl, substituted or unsubstituted isobutyl, or, substituted or unsubstituted *tert*-butyl;

and/or, in each of R^3, in , R^{1a} is methyl, ethyl, *n*-propyl, isopropyl, *n*-butyl, isobutyl or *tert*-butyl;

and/or, when two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring, then the 5- to 7-membered heterocarbocyclic ring is azetidine ring, piperazine ring, piperidine ring, pyrrole ring, morpholine ring, thiomorpholine ring, 1,4-dioxane, pyran ring, dihydroimidazole ring, dihydroisoxazole ring, dihydroisothiazole ring, dihydrooxadiazole ring, dihydrooxazole ring, dihydropyrazine ring, dihydropyrazole ring, dihydropyridine ring, dihydropyrimidine ring, dihydropyrrole ring, dihydroquinoline ring, dihydrotetrazole ring, dihydrothiadiazole ring, dihydrothiazole ring, dihydrotriazole ring, dihydroazetidine ring, imidazole ring, pyrazole ring, pyrrole ring, furan ring, thiophene ring, isothiazole ring, oxazole ring, oxadiazole ring, isoxazole ring, pyrazine ring, pyridazine ring, pyridine ring, pyrimidine ring, tetrazole ring, thiadiazole ring, thiazole ring, thiophene ring or triazole ring;

and/or, when  is replaced by a substituted or unsubstituted heteroaromatic ring, then the heteroaromatic ring is C_1-C_{10} heteroaromatic ring, the heteroatom(s) in the heteroaromatic ring is(are) preferably selected from nitrogen and oxygen, and the number of the heteroatom(s) is 1 to 3; the heteroaromatic ring is more preferably acridine ring, carbazole ring, cinnoline ring, carboline ring, quinoxaline ring, imidazole ring, pyrazole ring, pyrrole ring, indole ring, indoline ring, benzotriazole ring, benzimidazole ring, furan ring, thiophen ring, isothiazole ring, benzothiophene ring, dihydrobenzothiophene ring, benzofuran ring, isobenzofuran ring, benzoxazole ring, benzofuraxan ring, benzopyrazole ring, quinoline ring, isoindoline ring, isoquinoline ring, oxazole ring, oxadiazole ring, isoxazole ring, indole ring, pyrazine ring, pyridopyridine ring, tetrazolopyridine ring, imidazopyridine ring, imidazopyrazine ring, pyridazine ring, pyridine ring, naphthopyrimidine ring, pyrimidine ring, tetrazole ring, thiadiazole ring, thiazole ring,

thiophene ring, triazole ring, quinazoline ring, tetrahydroquinoline ring, dihydrobenzimidazole ring, dihydrobenzofuran ring, dihydrobenzoxazole ring or dihydroquinoline ring.

~~8~~7. The pharmaceutical composition of any one of claims ~~5-7~~1, or 5-6, wherein,

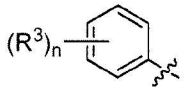
~~each of R^1 is independently halogen, or, substituted or unsubstituted alkyl; or two adjacent R^1 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring; or each of R^1 is independently halogen, substituted or unsubstituted alkyl, or substituted or unsubstituted alkoxy;~~

~~and/or, R^2 is alkyl or halogen;~~

~~and/or,~~ each of R^3 is independently deuterium, halogen, alkylthio or alkoxy; or two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring; when two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form the 5- to 7- membered carbocyclic ring or heterocarbocyclic ring, then the carbocyclic ring or heterocarbocyclic ring can be further substituted by one or more than one C_1-C_4 alkyl;

~~and/or, n is 0, 1, 2, 3, 4 or 5;~~

~~and/or, m is 2 or 3; preferably, m is 2;~~

and/or,  can be replaced by a substituted or unsubstituted heteroaromatic ring.

~~9~~8. The pharmaceutical composition of claim ~~8~~7, wherein,

~~when R^1 is substituted alkyl, the substituent(s) in the substituted alkyl is(are) one or more selected from halogen and~~  ~~; R^a and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from hydroxyl and C_1-C_4 carboxyl;~~

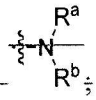
~~and/or, in R^1, the substituent(s) in the substituted alkyl, the substituent(s) in the substituted alkoxy, the substituent(s) in the substituted hydroxyl or the substituent(s) in the substituted amino are substituted by one or more than one halogen, preferably substituted by one or more than one F;~~

~~and/or,~~ when n is 1, then R^3 is halogen, alkylthio or alkoxy; and R^3 is located on ortho, meta or para position of the phenyl;

and/or, when n is 2, then two R^3 are located on ortho and meta positions of the phenyl, and the two R^3 are identical or different; or two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring; when two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring, then the carbocyclic ring or heterocarbocyclic ring can be further substituted by one or more than one C_1-C_4 alkyl; the 5- to 7- membered heterocarbocyclic ring is preferably 2,3-dihydro-1,4-dioxane, oxazole ring, isoxazole ring or pyrazole ring;

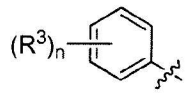
and/or, when n is 3, then two of R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring; when two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring, then the carbocyclic ring or heterocarbocyclic ring can be further substituted by one or more than one C_1-C_4 alkyl; the 5- to 7- membered heterocarbocyclic ring is preferably 2,3-dihydro-1,4-dioxane, oxazole ring, isoxazole ring or pyrazole ring;

and/or, when n is 4 or 5, R^3 is deuterium;

~~and/or, when m is 2, then two R^1 are located on ortho and meta positions of the phenyl, respectively, and the two R^1 are identical or different; R^1 located on ortho position of the phenyl is alkyl or alkyl substituted by halogen; R^1 located on meta position of the phenyl is alkyl substituted by~~  ~~;~~

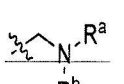
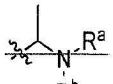
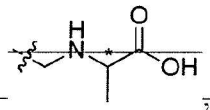
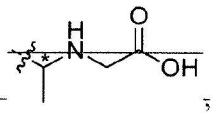
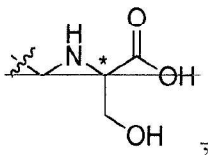
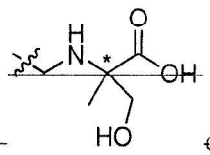
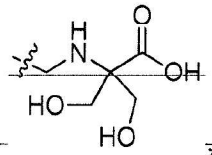
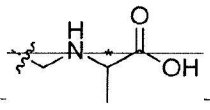
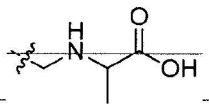
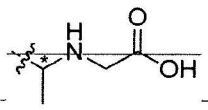
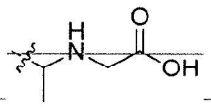
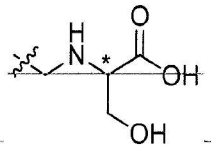
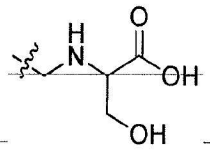
~~and/or, when m is 2, then two R^1 are located on ortho and meta positions of the phenyl, respectively, and the two R^1 are identical or different; R^1 located on ortho position of the phenyl is F, substituted or unsubstituted alkyl, or substituted or unsubstituted alkoxy;~~

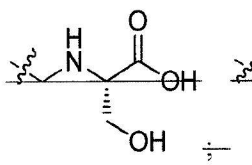
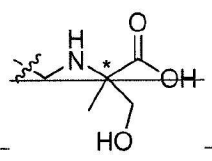
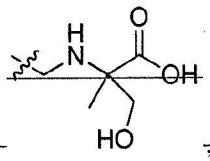
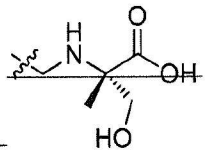
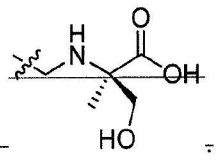
~~and/or, when m is 3, then two of R^1 are adjacent, and the two adjacent R^1 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring, and the third R^1 is alkyl substituted by~~  ~~;~~

and/or, when  is replaced by a substituted or unsubstituted heteroaromatic ring, then the heteroatom(s) in the heteroaromatic ring is(are) selected from nitrogen and oxygen, and the number of the heteroatom(s) is 1 to 3; further preferably, when the heteroaromatic ring is a monocyclic ring, then the heteroatom(s) is(are) nitrogen, and the number of the heteroatom(s) is 1 or 2; when the heteroaromatic ring is a dicyclic heteroaromatic ring and the heteroatom(s) is(are) nitrogen, then the number of the heteroatom(s) is 3; when the heteroaromatic ring is a dicyclic heteroaromatic ring, the heteroatom(s) is(are) selected from nitrogen and oxygen, and the number of the heteroatoms is 2, then the heteroatoms are not adjacent.

~~10. The pharmaceutical composition of claim 9, wherein,~~

~~R^1 located on ortho position of the phenyl is C_{1-4} alkyl or C_{1-4} alkyl substituted by one or more than one halogen, such as trifluoromethyl;~~

~~and/or, the alkyl substituted by~~  ~~is C_1-C_4 alkyl substituted by~~ ~~; the C_1-C_4 alkyl substituted by~~  ~~is preferably~~  ~~or~~  ~~, wherein, one of R^a and R^b is H, and the other is alkyl substituted by hydroxyl and/or carboxyl; the C_1-C_4 alkyl substituted by~~  ~~is more preferably~~  ~~,~~  ~~;~~  ~~,~~  ~~or~~  ~~, wherein, the carbon labelled by * is an *S*-configuration chiral carbon, an *R*-configuration chiral carbon or an achiral carbon;~~  ~~is preferably~~  ~~;~~  ~~is preferably~~  ~~;~~  ~~is preferably~~  ~~or~~

119. The pharmaceutical composition of any one of claims 101 or 6-8, wherein,

each of R^1 is independently H, or, substituted or unsubstituted alkyl; or two adjacent R^1 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring; the substituent(s) in the substituted alkyl is(are) one or more selected from halogen or ; R^a and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from hydroxyl or C_1-C_4 carboxyl;

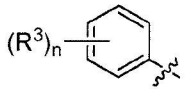
R^2 is alkyl or halogen;

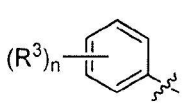
each of R^3 is independently H, halogen, alkylthio or alkoxy; or two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring;

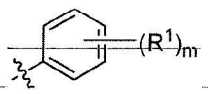
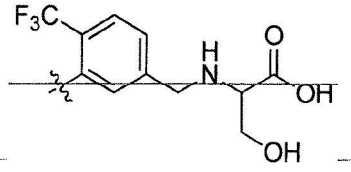
n is 0, 1, 2, 3, 4 or 5; when n is 1, then R^3 is halogen, alkylthio or alkoxy; and R^3 is located on ortho, meta or para position of the phenyl; when n is 2, then two $R^3$are located on ortho and meta positions of the phenyl, wherein, the two R^3 are identical or different; or two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring; when n is 3, then one of R^3 is halogen, the other two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring; when two R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered carbocyclic ring or heterocarbocyclic ring, then the carbocyclic ring or heterocarbocyclic ring is further substituted by one or more than one C_1-C_4 alkyl; when n is 4 or 5, R^3 is deuterium;

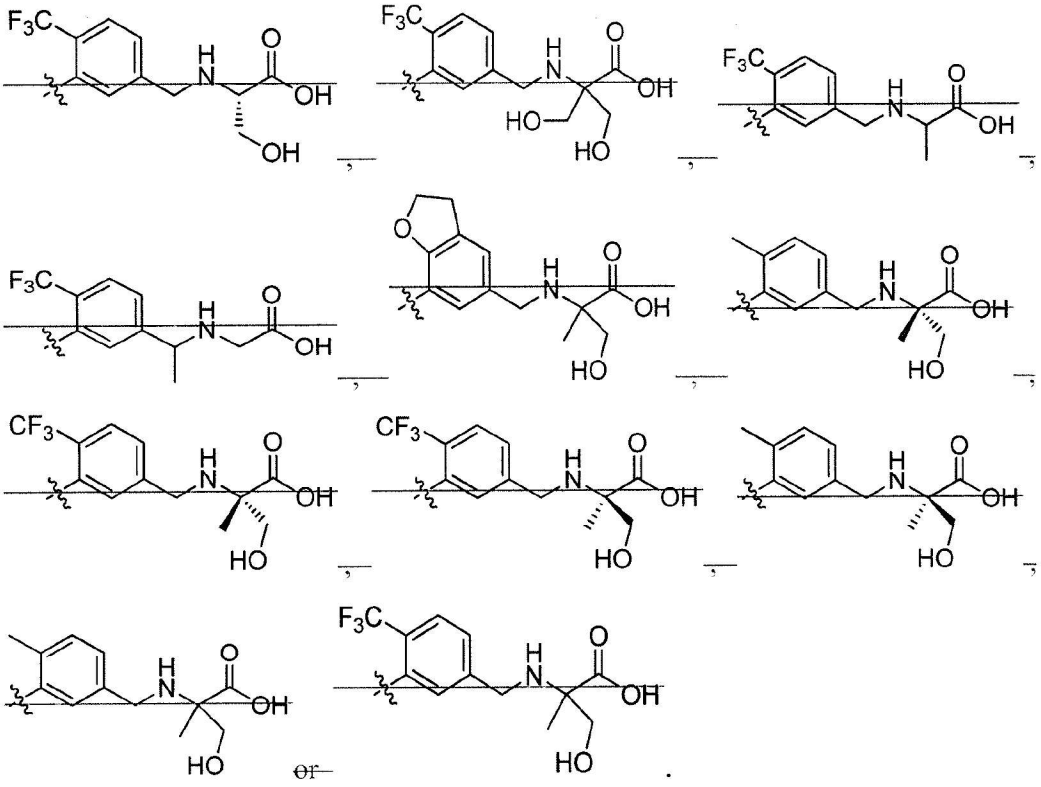
m is 2 or 3; when m is 2, then two R^1 are located on ortho and meta position of the phenyl, respectively, R^1 located on ortho position of the phenyl is alkyl or alkyl

~~substituted by halogen; R^1 located on meta-position of the phenyl is alkyl substituted by~~  ~~; when m is 3, then two of R^3 are adjacent, and the two adjacent R^3 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring, and the third R^3 is alkyl substituted by~~  ~~;~~

and  can be replaced by a substituted or unsubstituted heteroaromatic ring, in the heteroaromatic ring, the heteroatom(s) is(are) selected from nitrogen and oxygen, and the number of the heteroatom(s) is 1 to 3; further preferably, when the heteroaromatic ring is a monocyclic ring, then the heteroatom(s) is(are) nitrogen, and the number of the heteroatom(s) is 1 or 2; when the heteroaromatic ring is a dicyclic heteroaromatic ring and the heteroatom(s) is(are) nitrogen, then the number of the heteroatom(s) is 3; when the heteroaromatic ring is a dicyclic heteroaromatic ring, the heteroatom(s) is(are) selected from nitrogen and oxygen, and the number of the heteroatoms is 2, then the heteroatoms are not adjacent.

~~12~~10. The pharmaceutical composition of any one of claims ~~5-11~~1 or 5-9, wherein,  is

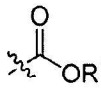
~~and/or,~~  ~~is~~  ~~;~~



~~13~~11. The pharmaceutical composition of claim ~~5~~1, wherein,

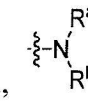
~~each of R^1 is independently halogen, substituted or unsubstituted alkyl, or substituted or unsubstituted alkoxy;~~

~~R^2 is substituted or unsubstituted alkyl or halogen;~~

each of R^3 is independently deuterium, halogen, substituted or unsubstituted alkylthio, substituted or unsubstituted hydroxyl, substituted or unsubstituted amino, substituted or unsubstituted alkyl, substituted or unsubstituted alkoxy,  or , wherein, R^{1a} is C_1-C_4 alkyl;

~~in each of R^1, the substituent(s) in the substituted alkyl, the substituent(s) in the substituted alkoxy, the substituent(s) in the substituted hydroxyl or the substituent(s) in the substituted amino are substituted by one or more than one halogen, preferably substituted by one or more than one F;~~

the substituent(s) in the substituted alkyl in each of ~~R^2 and~~ R^3, the substituent(s) in the substituted alkoxy and the substituent(s) in the substituted alkythio in each of

R^3 are one or more selected from halogen, C_{1-4} alkyl, hydroxyl, , C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group; when there are more substituents than one, then the substituents are identical or different; R^a and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from halogen, C_1-C_4 alkyl, hydroxyl, , C_1-C_4 alkoxy, C_1-C_4 carboxyl, C_1-C_4 ester group and C_1-C_4 amide group; R^{a1} and R^{b1} are independently hydrogen or C_1-C_4 alkyl;

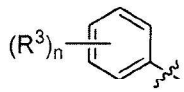
in each of R^3, the substituent(s) in the substituted hydroxyl or the substituted amino is(are) one or more selected from C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group;

~~m is 2 or 3;~~

n is 0, 1, 2, 3, 4 or 5;

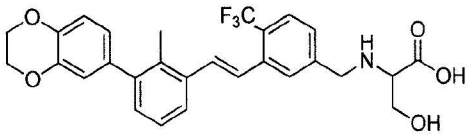
~~when m is 2, then two R^1 are located on ortho and meta positions of the phenyl, and the two R^1 are identical or different; the R^1 located on ortho positions of the phenyl is F, substituted or unsubstituted alkyl, or, substituted or unsubstituted alkoxy;~~

~~when ===== is a double bond and m is 3, then two of R^1 are adjacent, and the two adjacent R^1 together with the two carbon atoms to which they are attached form a 5- to 7- membered heterocarbocyclic ring;~~

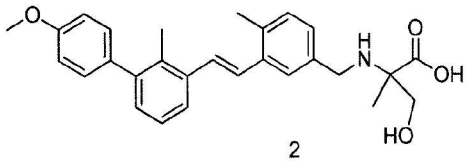
or in the aromatic vinyl or aromatic ethyl derivative represented by general formula (I),  is replaced by a substituted or unsubstituted heteroaromatic ring, in the heteroaromatic ring, the heteroatom(s) is(are) selected from nitrogen, oxygen and sulfur, and the number of the heteroatom(s) is 1 to 4; the substituent(s) in the substituted heteroaromatic ring is(are) one or more selected from halogen, C_{1-4} alkyl, hydroxyl, , C_{1-4} alkoxy, C_{1-4} carboxyl, C_{1-4} ester group and C_{1-4} amide group; when there are more substituents than one, then the substituents are identical or different; R^a and R^b are independently hydrogen, or, substituted or unsubstituted alkyl; in R^a or R^b, the substituent(s) in the substituted alkyl is(are) one or more selected from halogen, C_1-C_4 alkyl, hydroxyl, , C_1-C_4 alkoxy, C_1-C_4

carboxyl, C_1-C_4 ester group and C_1-C_4 amide group; R^{a1} and R^{b1} are independently hydrogen or C_1-C_4 alkyl.

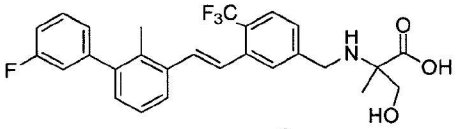
~~14~~12. The pharmaceutical composition of any one of claims ~~5-13~~1 or 6-11, wherein, the aromatic vinyl or aromatic ethyl derivative represented by general formula (I) is:



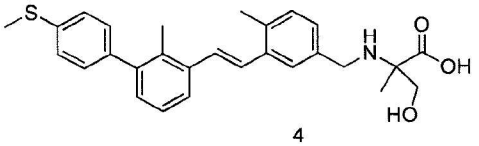
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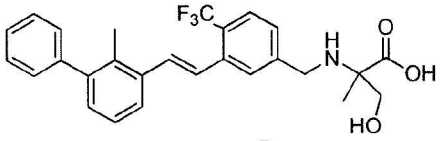
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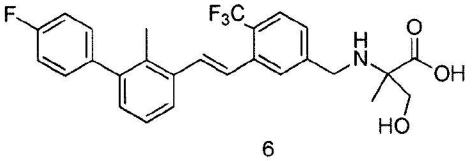
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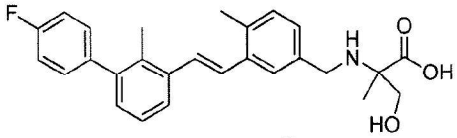
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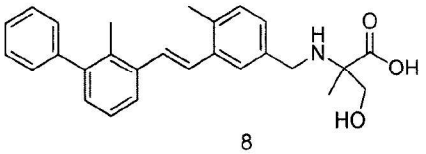
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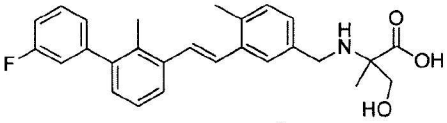
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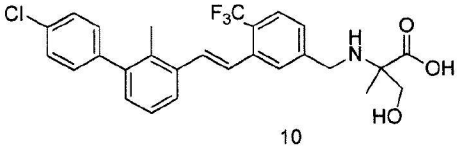
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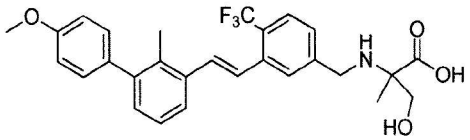
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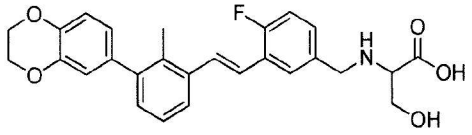
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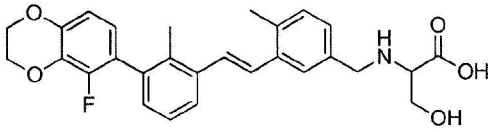
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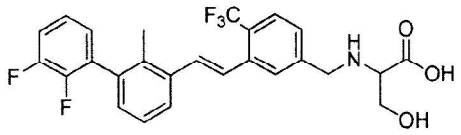
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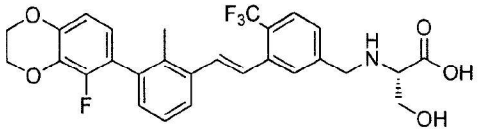
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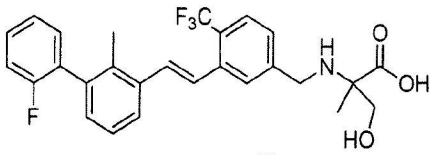
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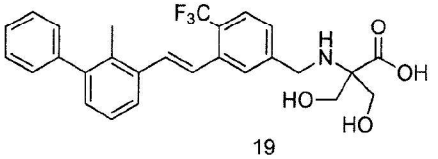
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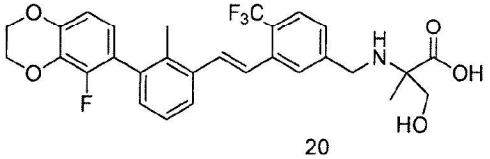
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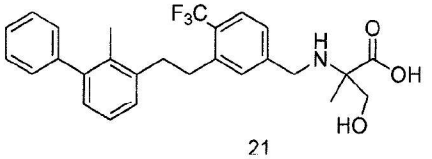
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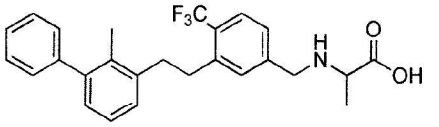
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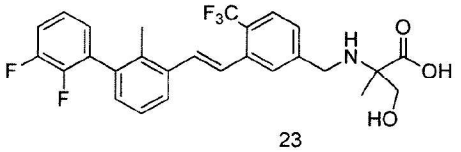
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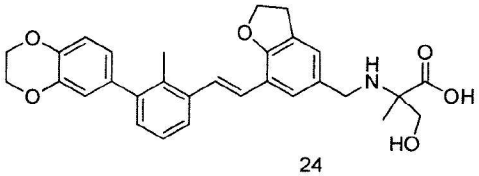
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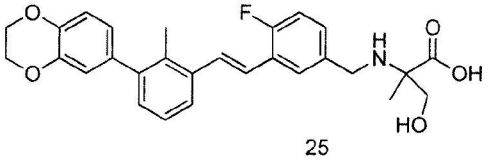
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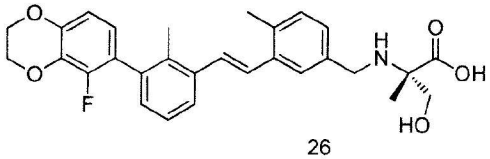
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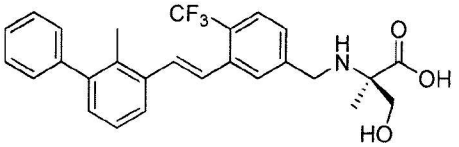
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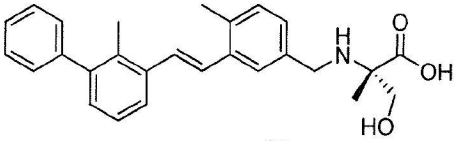
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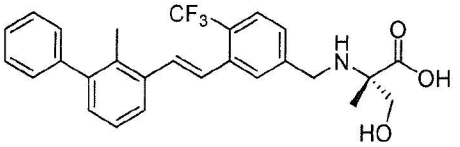
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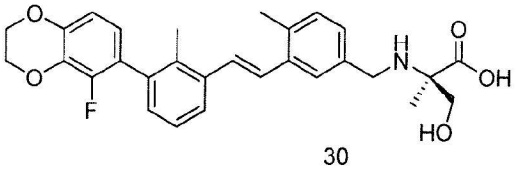
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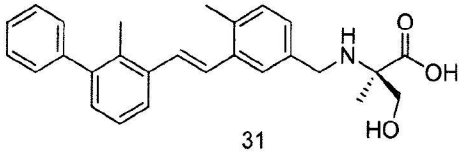
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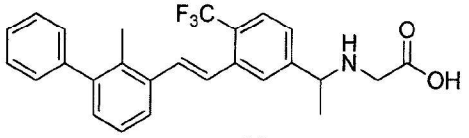
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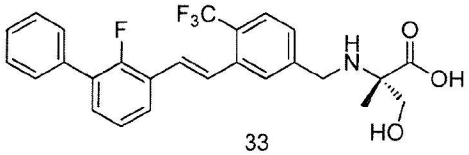
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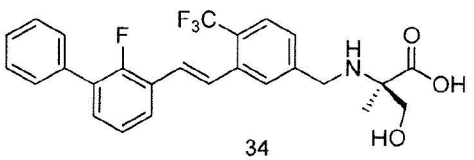
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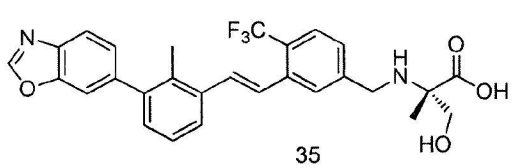
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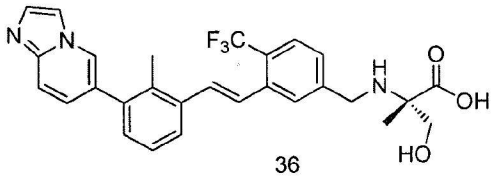
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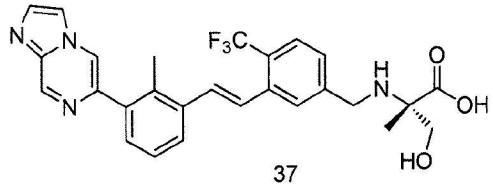
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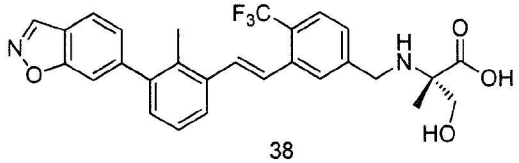
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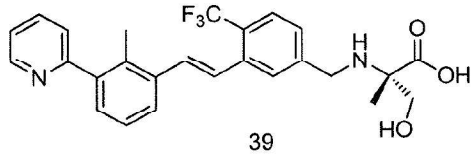
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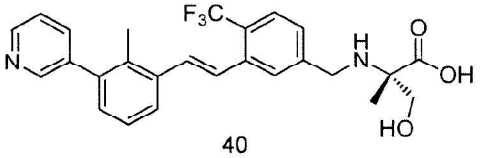
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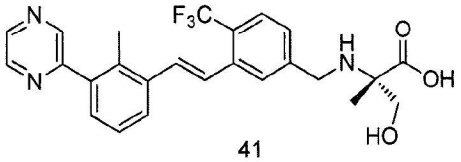
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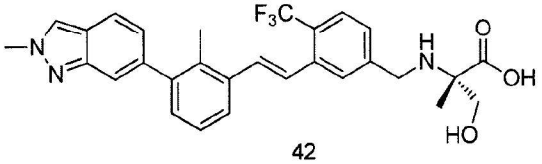
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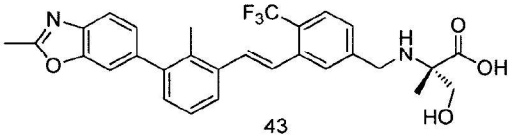
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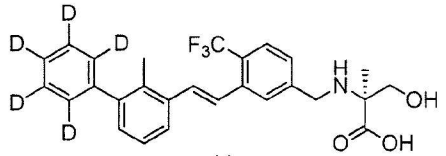
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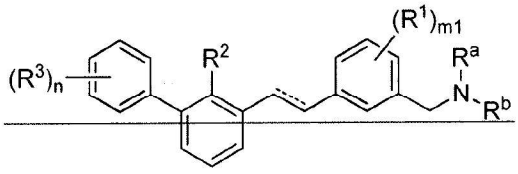
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44

and .

~~15. The pharmaceutical composition of any one of claims 5-14, wherein, the aromatic vinyl or aromatic ethyl derivative represented by general formula (I) is an aromatic vinyl or aromatic ethyl derivative represented by general formula (II):~~

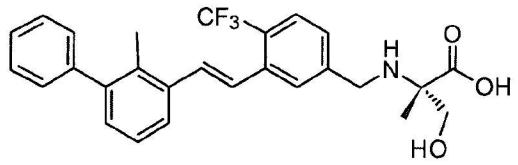


(II)

~~wherein, the definitions of R^1, R^2, R^3, n, R^a and R^b are as defined in claim 5, and m1 is 0, 1 or 2.~~

~~16~~13. The pharmaceutical composition of any one of claims ~~5-15~~1 or 5-12,

wherein, the aromatic vinyl or aromatic ethyl derivative represented by general formula (I) is Compound 29

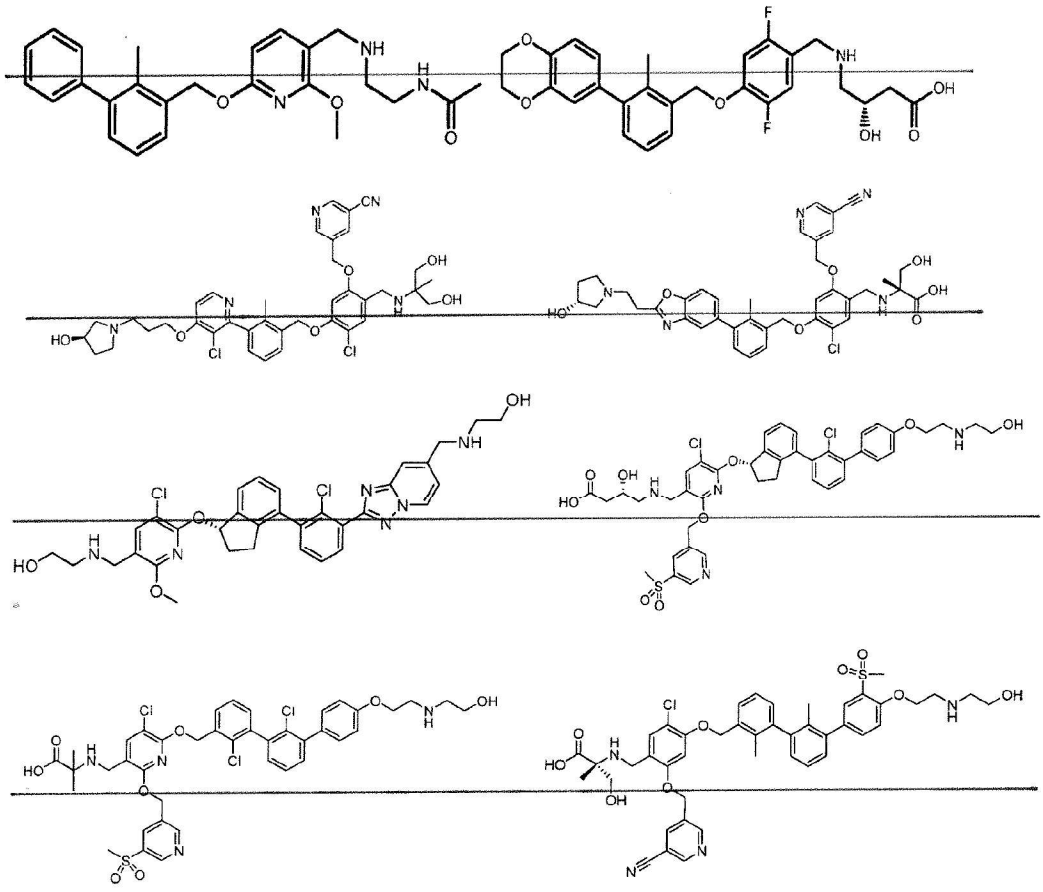


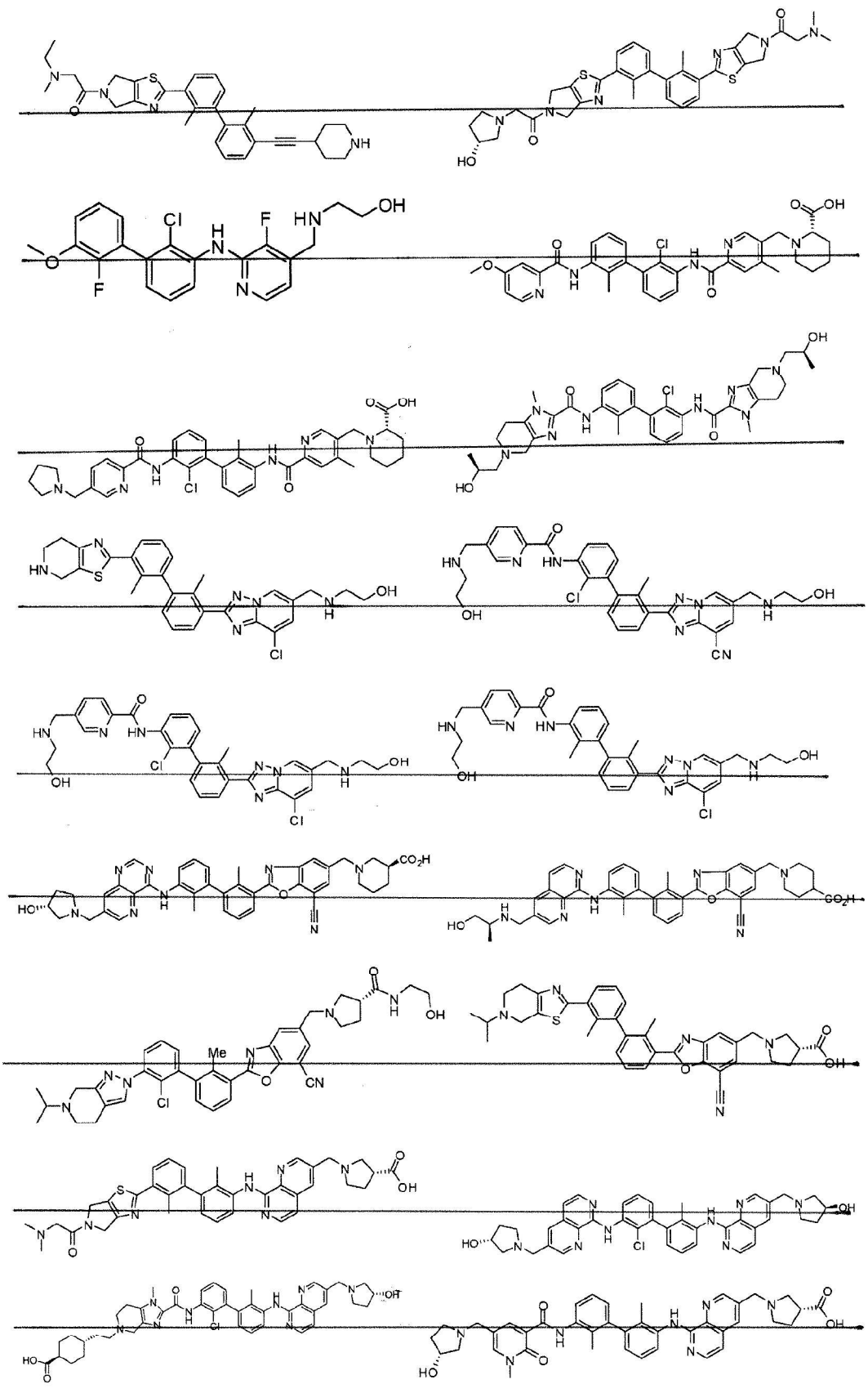
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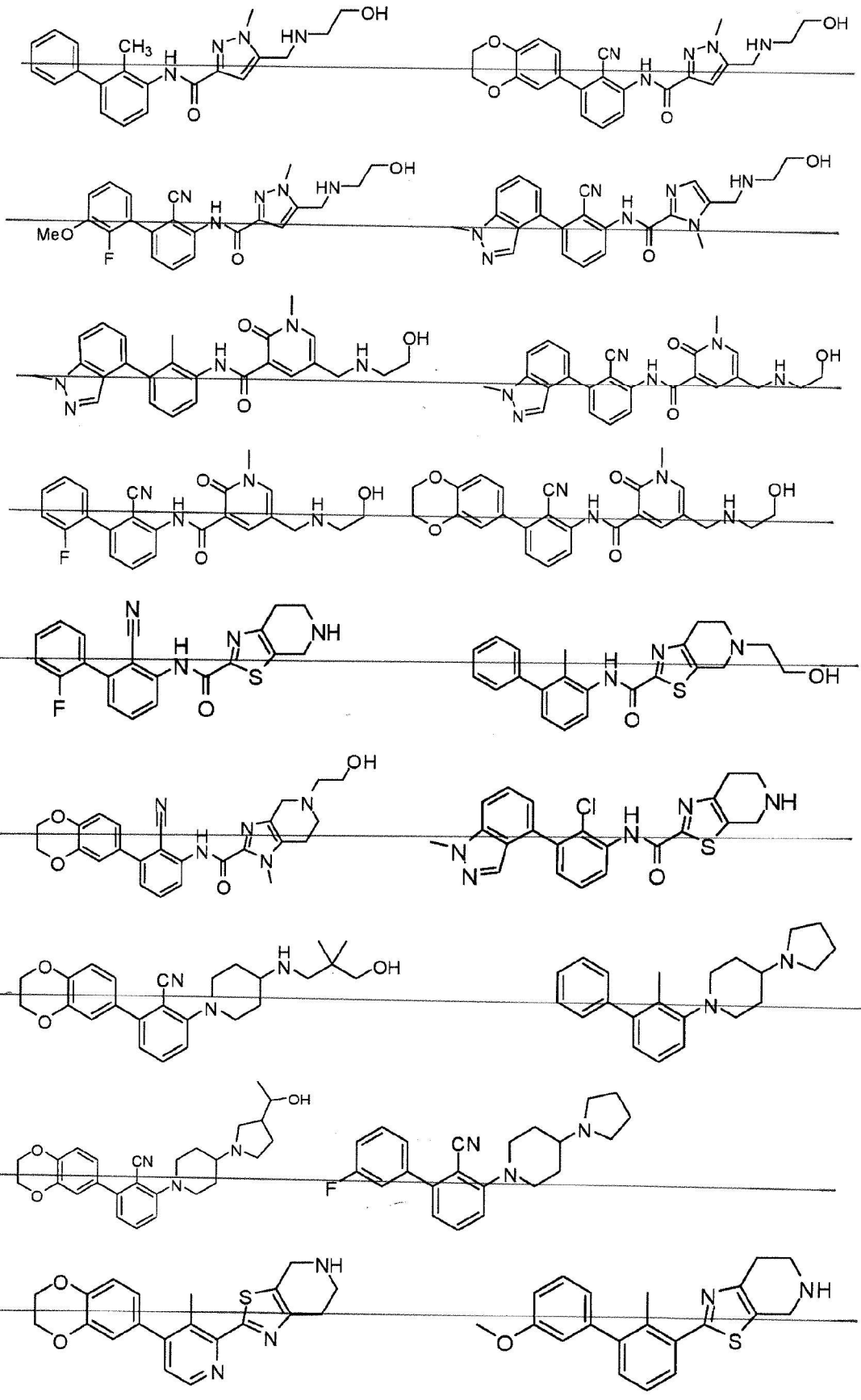
~~17~~14. The pharmaceutical composition of claim ~~16~~13, wherein, Compound 29 is in oral dosage form;

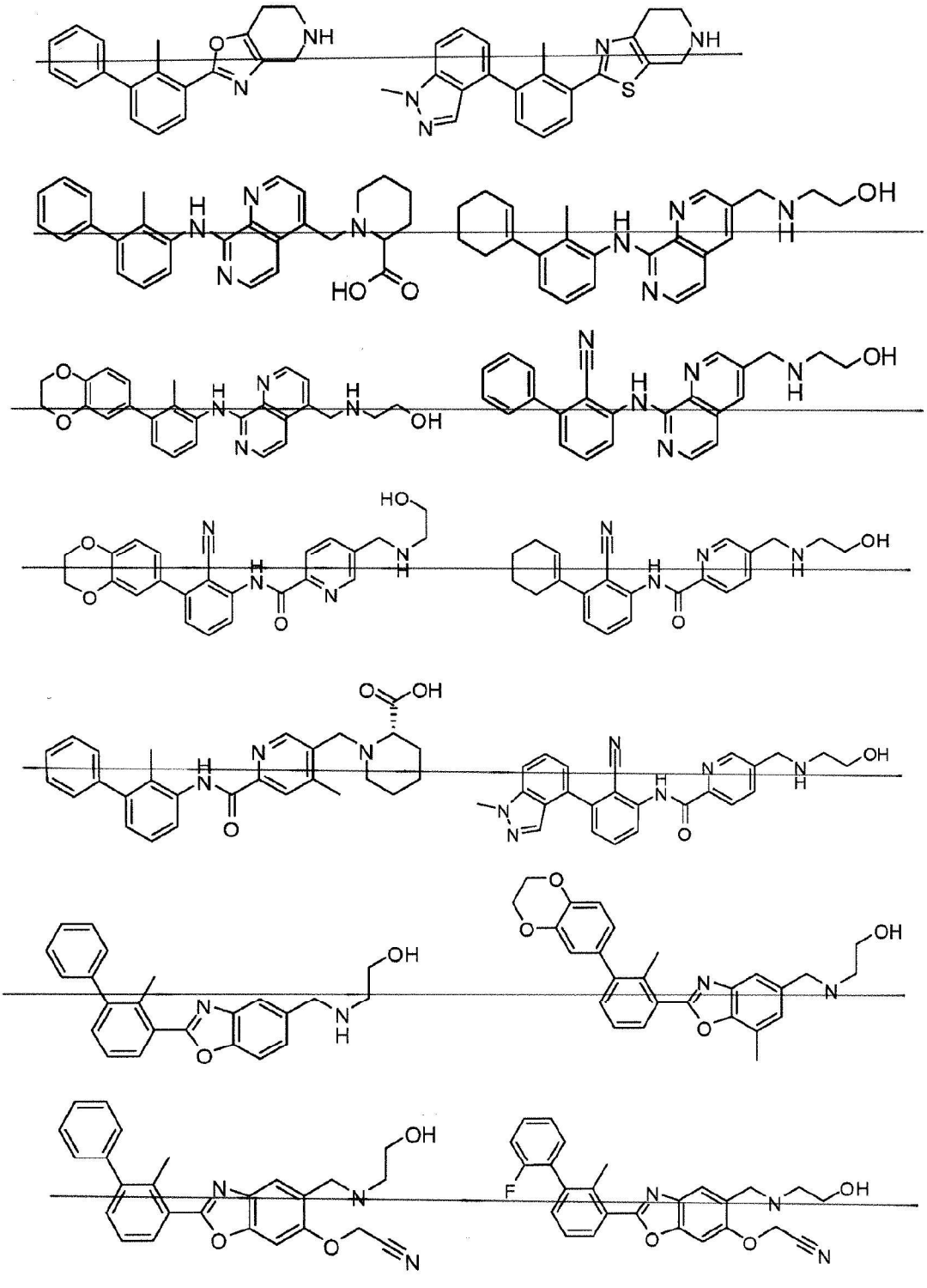
and/or, PD-L1 is Durvalumab, which is in injection dosage form.

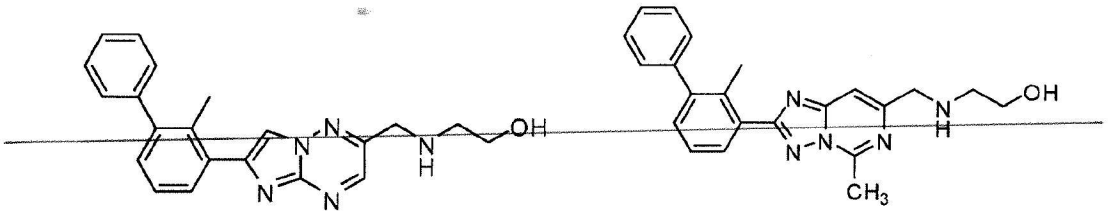
~~18. The pharmaceutical composition of any one of claims 1-4, wherein, the small molecule PD-1/PD-L1 inhibitor is any one of the following compounds or a pharmaceutically acceptable salt thereof:~~

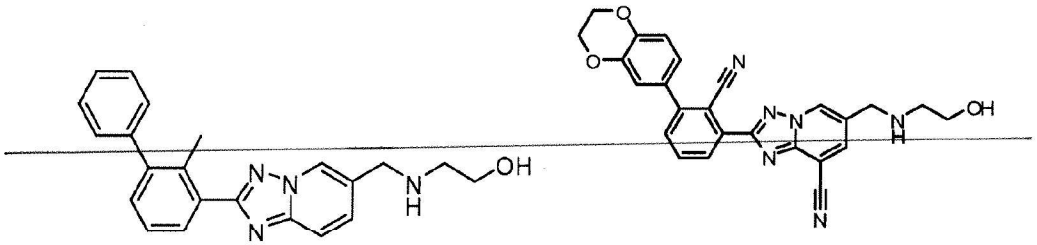


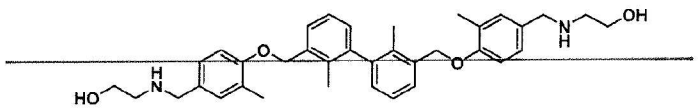


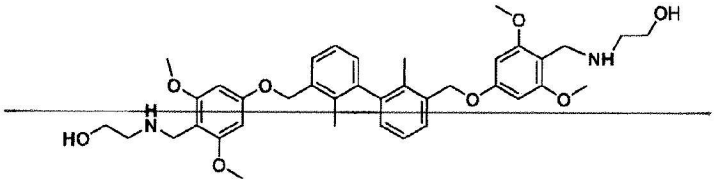


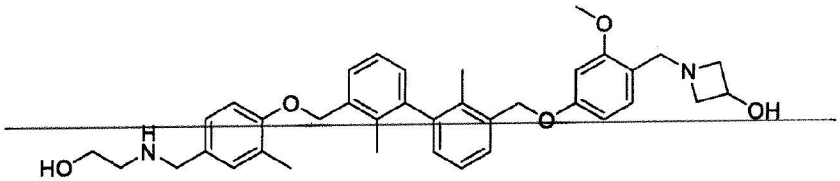


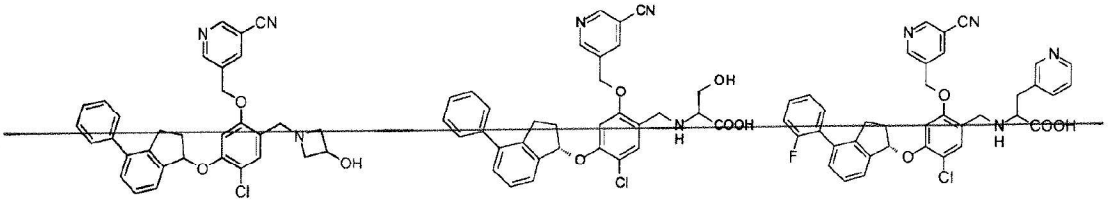


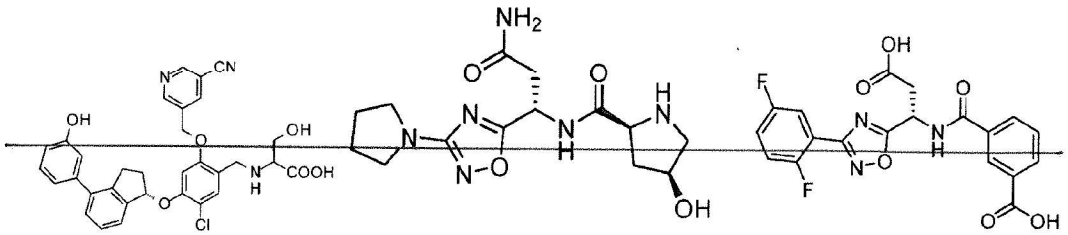


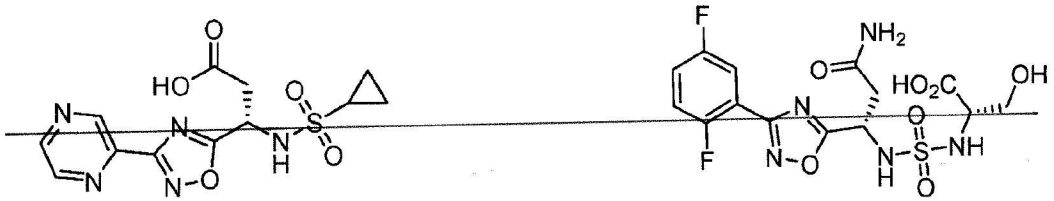


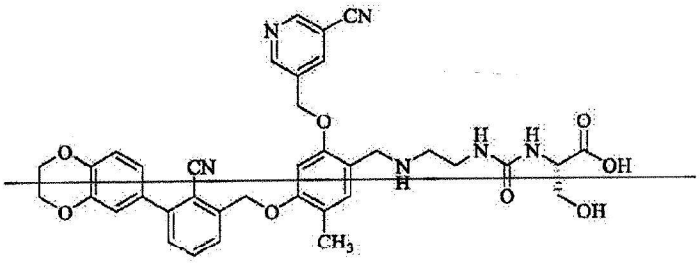


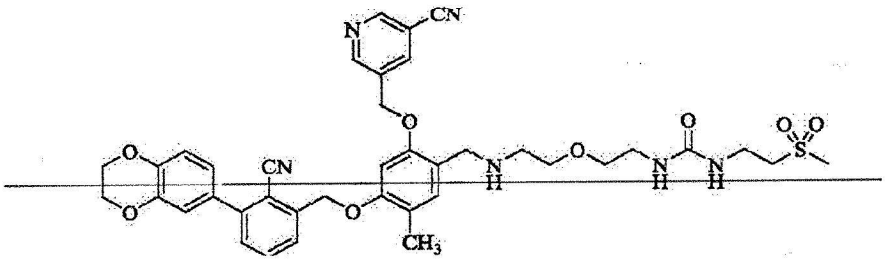


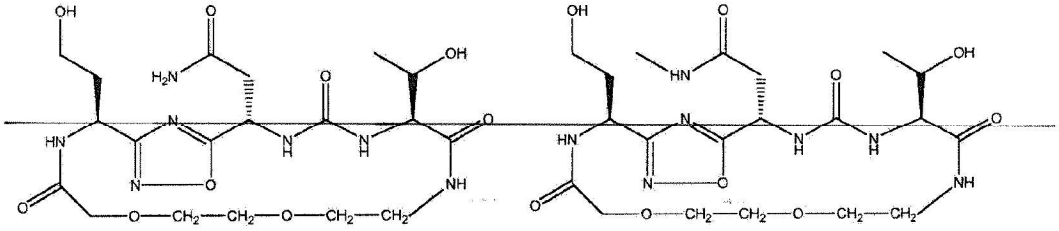


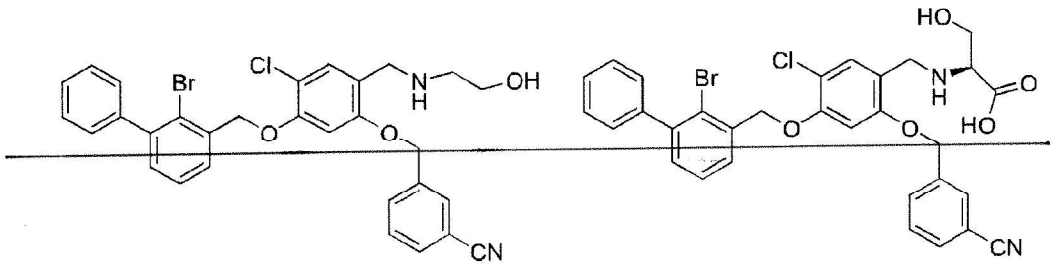


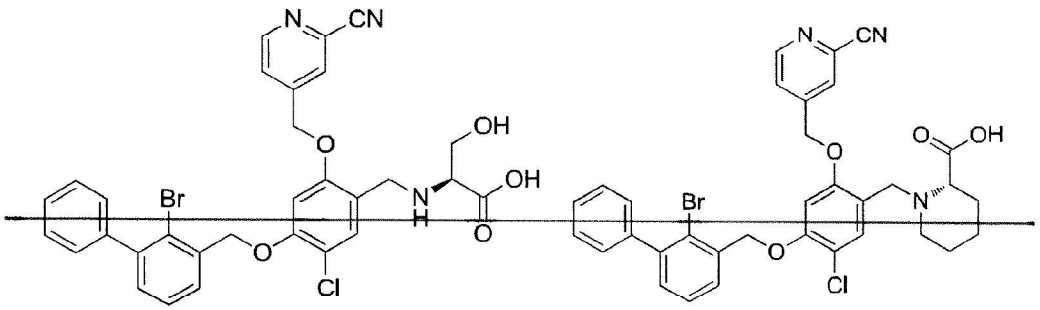


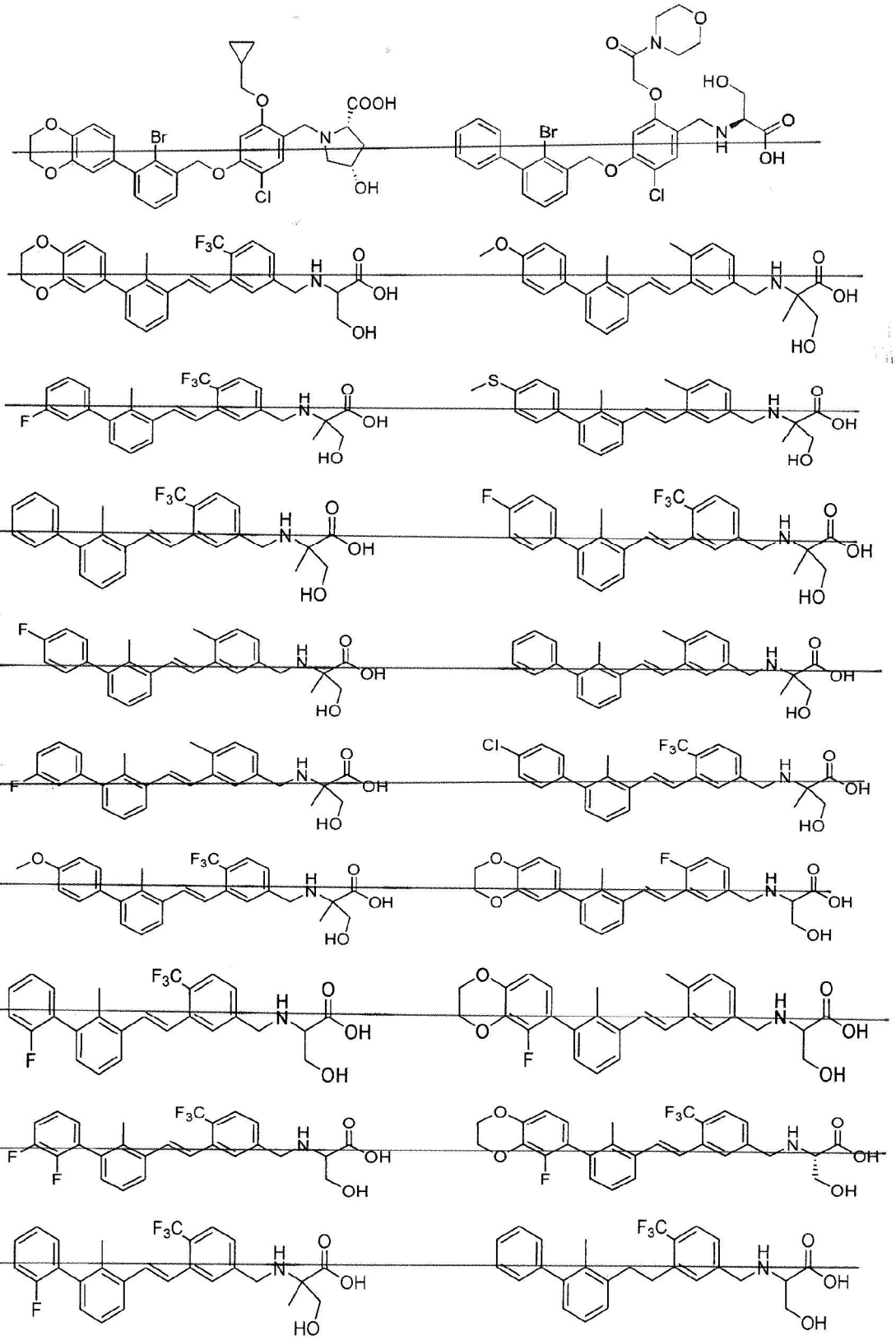


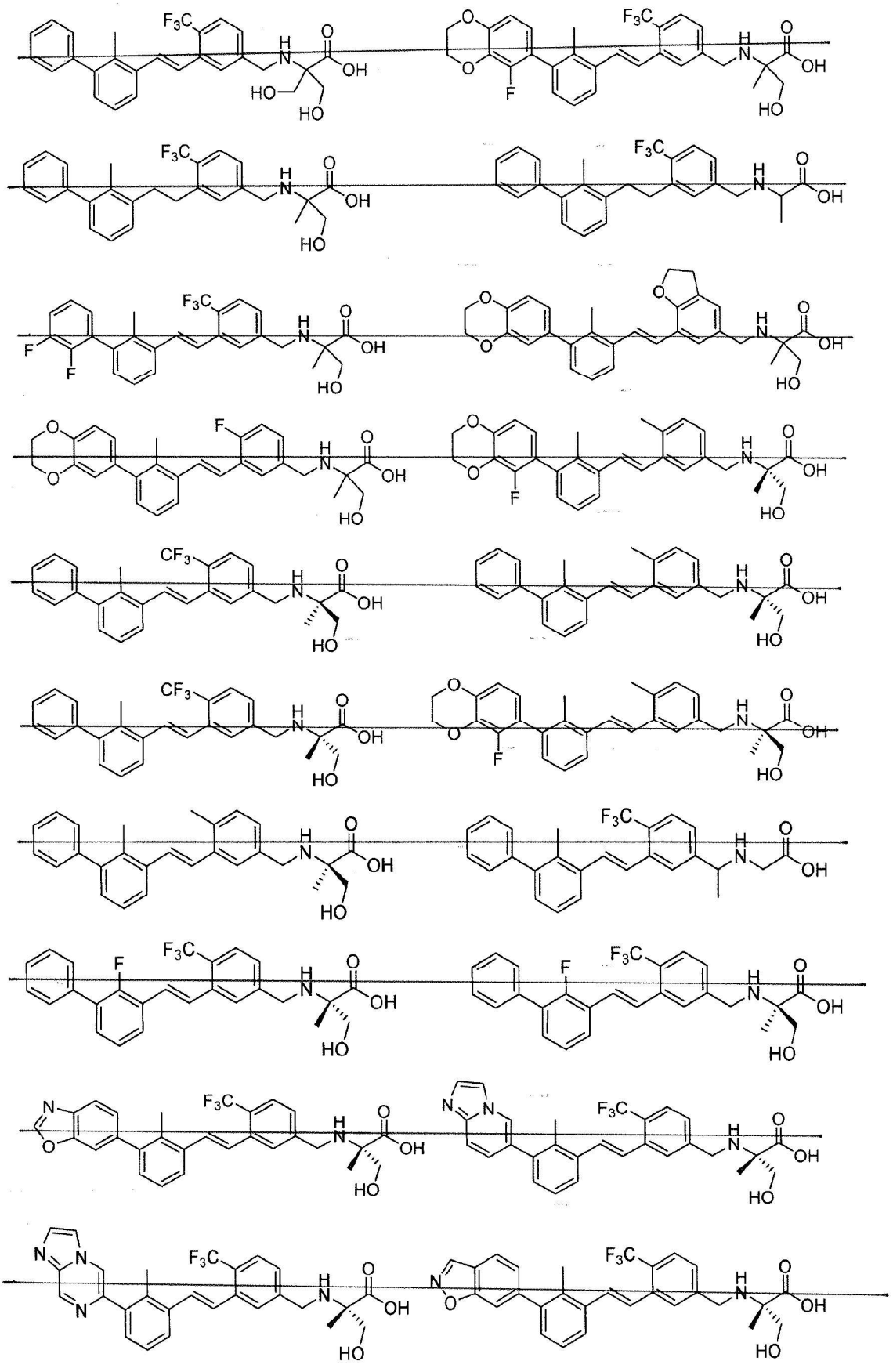


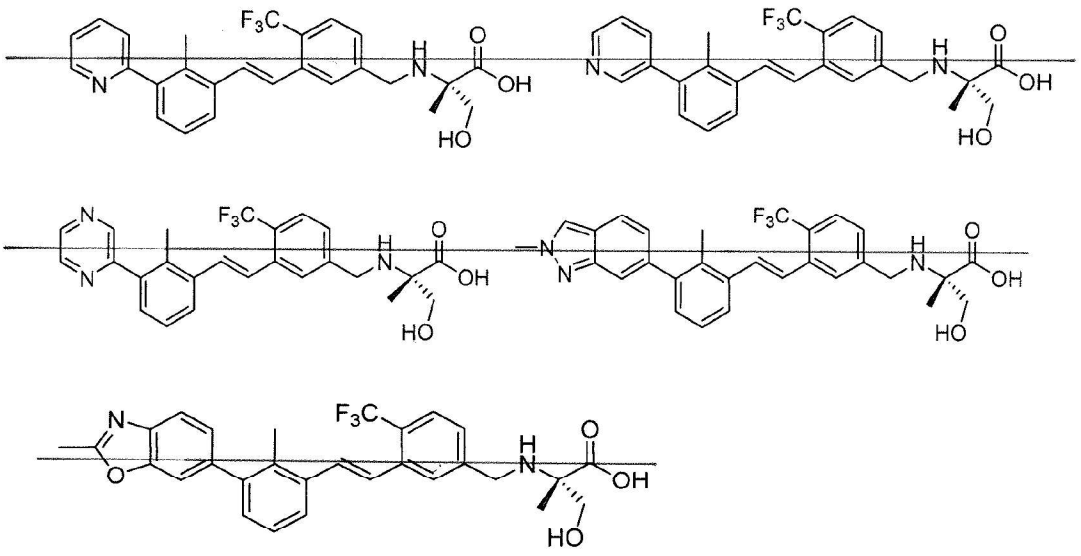












~~19~~15. The pharmaceutical composition of any one of claims 1-~~18~~14, wherein, the pharmaceutical composition comprises a pharmaceutically acceptable carrier;

and/or, the PD-L1 antibody and small-molecule PD-1/PD-L1 inhibitor exist in a single pharmaceutical composition or in separate pharmaceutical compositions.

~~20~~16. A use of the pharmaceutical composition of any one of claims 1-~~19~~15 in manufacturing a medicament for treating cancer.

~~21~~17. The use of claim ~~20~~16, wherein, the cancer is lung cancer, stomach cancer, colorectal cancer, cervical cancer, ovarian cancer, prostate cancer, breast cancer, pancreatic cancer, liver cancer, bladder cancer, kidney cancer, bone cancer, skin cancer, melanoma, glioma, neuroblastoma, leukemia or lymphoma, such as colorectal cancer, such as colon cancer;

and/or, the PD-L1 antibody and small-molecule PD-1/PD-L1 inhibitor are to be administered simultaneously or administered separately;

and/or, the PD-L1 antibody is to be administered by injection;

and/or, the small-molecule PD-1/PD-L1 inhibitor is to be administered by oral administration.