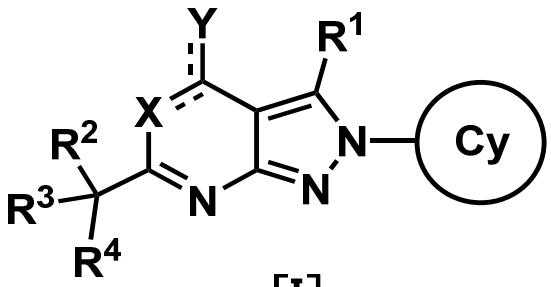
CLAIMS

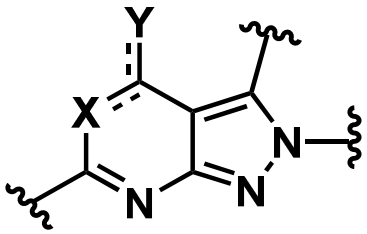
[Claim 1]

A compound of Formula [I]:



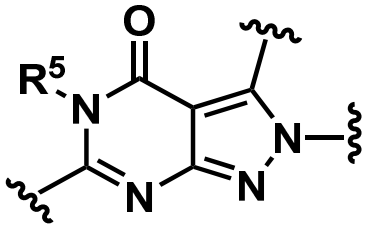
[I] ,

or a pharmaceutically acceptable salt thereof, wherein the partial structure:



is:

(1) a structure of the formula:



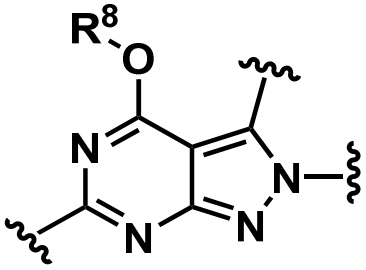
wherein R^5 is hydrogen or C_{1-4} alkyl, wherein the alkyl may be optionally substituted with:

(a) carboxy,

(b) $-CO-C_{1-4}$ alkoxy, or

(c) $-CO-NR^6R^7$, wherein R^6 and R^7 are each independently hydrogen or C_{1-4} alkyl, or

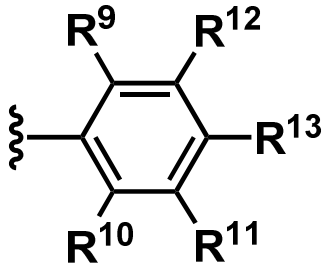
(2) a structure of the formula:



wherein R^8 is C_{1-4} alkyl;

a cyclic group Cy is:

(1) a group of the formula:



wherein R^9 and R^{10} are each independently

(a) hydrogen,

(b) C_{1-4} alkyl, wherein the alkyl may be optionally substituted with C_{1-4} alkoxy,

(c) C_{1-4} alkoxy,

(d) halogen,

(e) C_{1-4} haloalkyl, or

(f) $-O-C_{1-4}$ haloalkyl,

R^{11} and R^{12} are each independently

(a) hydrogen,

(b) C_{1-4} alkyl, or

(c) C_{1-4} haloalkyl,

R^{13} is

(a) hydrogen,

(b) C_{1-4} alkyl,

(c) C_{1-4} alkoxy,

(d) halogen,

(e) C_{1-6} haloalkyl,

(f) $-O-C_{1-4}$ haloalkyl, or

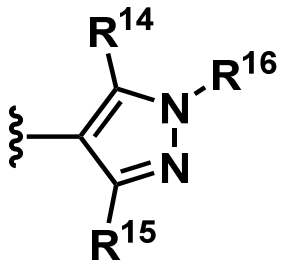
(g) C_{3-6} cycloalkyl, wherein the cycloalkyl may be optionally substituted with 1 or 2 halogen atoms, or

R^{13} may be combined together with R^{11} or R^{12} and the carbon atom to which it is attached to form:

(a) C_{5-6} cycloalkene, or

(b) 5- to 7-membered heterocycloalkene comprising 1 or 2 oxygen atoms, or

(2) a group of the formula:



wherein R^{14} and R^{15} are each independently C_{1-4} alkyl or C_{1-4} haloalkyl,

R^{16} is C_{1-6} alkyl or C_{3-6} cycloalkyl,

R^{1} is:

(1) hydrogen,

(2) cyano,

(3) C_{1-4} alkyl, wherein the alkyl may be optionally substituted with hydroxy or C_{1-4} alkoxy,

(4) C_{1-4} haloalkyl, or

(5) $-CO-C_{1-4}$ alkyl,

R^{2}, R^{3}, and R^{4} are each independently

(1) hydrogen,

(2) hydroxy,

(3) C_{1-6} alkyl, wherein the alkyl may be optionally

substituted with 1 or 2 substituents independently selected from the group consisting of:

(a) hydroxy,

(b) C_{1-4} alkoxy, and

(c) $-SO_2-C_{1-4}$ alkyl,

(4) C_{1-6} alkoxy, wherein the alkoxy may be optionally substituted with:

(a) hydroxy,

(b) phenyl, or

(c) 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms,

(5) halogen,

(6) C_{1-4} haloalkyl, wherein the haloalkyl may be optionally substituted with hydroxy or C_{1-4} alkoxy,

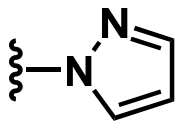
(7) $-O-C_{1-4}$ haloalkyl,

(8) $-OR^{17}$, wherein R^{17} is 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms,

(9) C_{3-6} cycloalkyl,

(10) 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms, wherein the heterocycloalkyl may be optionally substituted with oxo, or

(11) a group of the formula:



, or

R^2, R^3, and R^4 may be combined together with the carbon atom to which they are attached and the $-CR^2R^3R^4$ group may form:

(a) cyano,

(b) C_{3-6} cycloalkyl, wherein the cycloalkyl may be optionally substituted with 1 to 3 substituents independently selected from the group consisting of:

(1) cyano,

(2) C_{1-4} alkyl, wherein the alkyl may be optionally substituted with hydroxy or C_{1-4} alkoxy,

(3) C_{1-4} alkoxy,

(4) halogen, and

(5) $-CO-NR^{18}R^{19}$, wherein R^{18} and R^{19} are each independently hydrogen or C_{1-4} alkyl,

(c) 4- to 7-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur atom, wherein the heterocycloalkyl may be optionally substituted with 1 or 2 substituents independently selected from the group consisting of:

(1) hydroxy,

(2) C_{1-4} alkyl,

(3) C_{1-4} alkoxy, and

(4) halogen, or

any one of the ring-constituting atoms of the heterocycloalkyl may be optionally substituted with 1 or 2 oxo,

(d) 7- to 9-membered saturated fused heterocyclic group comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms, wherein the fused heterocyclic group may be optionally substituted with 1 or 2 halogen atoms,

(e) 5- to 8-membered bridged cycloalkyl, wherein the bridged cycloalkyl may be optionally substituted with

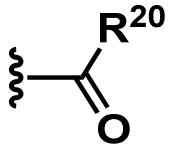
halogen,

(f) 5- to 8-membered bridged heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms, wherein the bridged heterocycloalkyl may be optionally substituted with C_{1-4} alkyl optionally substituted with hydroxy,

(g) C_{5-6} cycloalkenyl,

(h) 5- or 6-membered heterocycloalkenyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms, or

(i) a group of the formula:



wherein R^{20} is:

(1) C_{1-4} alkyl, or

(2) $-NR^{21}R^{22}$, wherein R^{21} and R^{22} are each independently

(a) hydrogen,

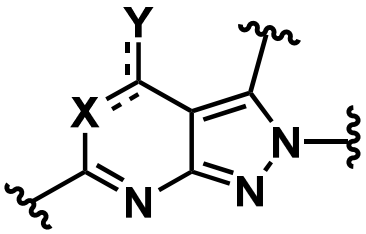
(b) C_{1-4} alkyl,

(c) C_{1-4} haloalkyl, or

(d) 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms.

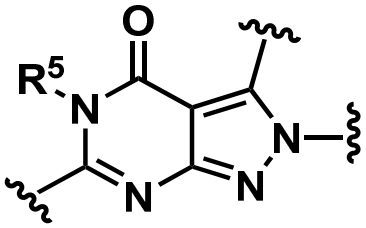
[Claim 2]

The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein the partial structure:



is

(1) a structure of the formula:



wherein R^5 is the same as defined in claim 1.

[Claim 3]

The compound according to claim 1 or 2, or a pharmaceutically acceptable salt thereof, wherein R^1 is hydrogen.

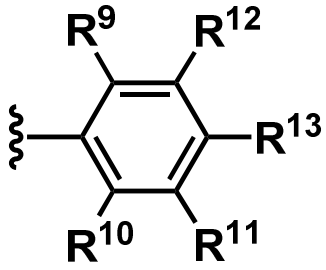
[Claim 4]

The compound according to any one of claims 1 to 3, or a pharmaceutically acceptable salt thereof, wherein R^5 is hydrogen.

[Claim 5]

The compound according to any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, wherein the cyclic group Cy is:

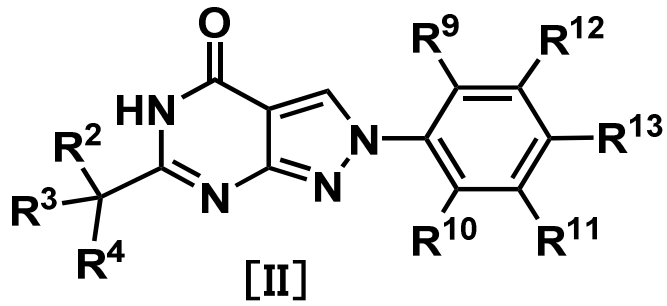
(1) a group of the formula:



wherein R^9, R^{10}, R^{11}, R^{12}, and R^{13} are the same as defined in claim 1.

[Claim 6]

The compound according to any one of claims 1 to 5, or a pharmaceutically acceptable salt thereof, represented by Formula [II]:



[II]

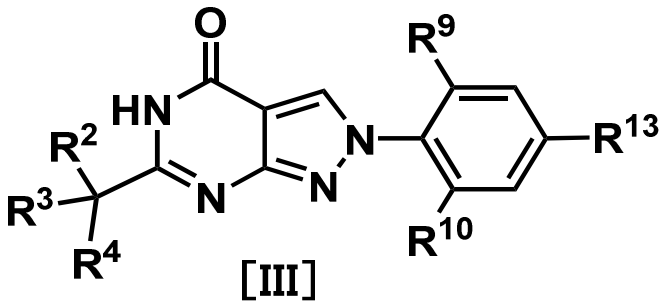
wherein R^2, R^3, R^4, R^9, R^{10}, R^{11}, R^{12}, and R^{13} are the same as defined in claim 1.

[Claim 7]

The compound according to any one of claims 1 to 6, or a pharmaceutically acceptable salt thereof, wherein R^{11} and R^{12} are hydrogen.

[Claim 8]

The compound according to any one of claims 1 to 7, or a pharmaceutically acceptable salt thereof, represented by Formula [III]:



[III]

wherein R^2, R^3, R^4, R^9, R^{10}, and R^{13} are the same as defined in claim 1.

[Claim 9]

The compound according to any one of claims 1 to 8, or a pharmaceutically acceptable salt thereof, wherein at least one of R^9 and R^{10} is:

(1) C_{1-4} alkyl, wherein the alkyl may be optionally substituted with C_{1-4} alkoxy,

(2) C_{1-4} alkoxy,

(3) halogen,

(4) C_{1-4} haloalkyl, or

(5) $-O-C_{1-4}$ haloalkyl.

[Claim 10]

The compound according to any one of claims 1 to 9, or a pharmaceutically acceptable salt thereof, wherein R^2, R^3, and R^4 are each independently

(1) hydrogen,

(2) hydroxy,

(3) C_{1-6} alkyl, wherein the alkyl may be optionally substituted with 1 or 2 substituents independently selected from the group consisting of:

(a) hydroxy,

(b) C_{1-4} alkoxy, and

(c) $-SO_2-C_{1-4}$ alkyl,

(4) C_{1-6} alkoxy, wherein the alkoxy may be optionally substituted with

(a) hydroxy,

(b) phenyl, or

(c) 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms,

(5) C_{1-4} haloalkyl, wherein the haloalkyl may be optionally substituted with hydroxy or C_{1-4} alkoxy,

(6) $-O-C_{1-4}$ haloalkyl, or

(7) C_{3-6} cycloalkyl, or

R^2, R^3, and R^4 may be combined together with the carbon atom to which they are attached, and the $-CR^2R^3R^4$ group may form:

(a) C_{3-6} cycloalkyl, wherein the cycloalkyl may be optionally substituted with 1 to 3 substituents independently selected from the group consisting of:

(1) cyano,

(2) C_{1-4} alkyl, wherein the alkyl may be optionally substituted with hydroxy or C_{1-4} alkoxy,

(3) C_{1-4} alkoxy,

(4) halogen, and

(5) $-CO-NR^{18}R^{19}$, wherein R^{18} and R^{19} are each independently hydrogen or C_{1-4} alkyl,

(b) 4- to 7-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur atoms, wherein the heterocycloalkyl may be optionally substituted with 1 or 2 substituents independently selected from the group consisting of:

(1) hydroxy,

(2) C_{1-4} alkyl,

(3) C_{1-4} alkoxy, and

(4) halogen, or

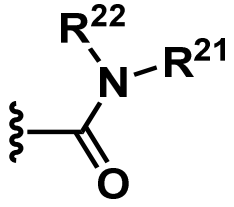
any one of the ring-constituting atoms of the heterocycloalkyl may be optionally substituted with 1 or 2 oxo groups,

(c) 5- to 8-membered bridged cycloalkyl, wherein the bridged cycloalkyl may be optionally substituted with halogen,

(d) 5- to 8-membered bridged heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms, wherein the bridged heterocycloalkyl may be optionally substituted with C_{1-4} alkyl optionally substituted with hydroxy,

(e) 5- or 6-membered heterocycloalkenyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms, or

(f) a group of the formula:



wherein R^{21} and R^{22} are each independently

(1) hydrogen,

(2) C_{1-4} alkyl,

(3) C_{1-4} haloalkyl, or

(4) 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms.

[Claim 11]

The compound according to any one of claims 1 to 10, or a pharmaceutically acceptable salt thereof, wherein R^2, R^3, and R^4 are each independently

(1) hydrogen,

(2) hydroxy,

(3) C_{1-6} alkyl, wherein the alkyl may be optionally substituted with 1 or 2 substituents independently selected from the group consisting of:

(a) hydroxy,

(b) C_{1-4} alkoxy, and

(c) $-SO_2-C_{1-4}$ alkyl,

(4) C_{1-6} alkoxy, wherein the alkoxy may be optionally substituted with:

(a) hydroxy,

(b) phenyl, or

(c) 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms, or

(5) C_{1-4} haloalkyl, wherein the haloalkyl may be optionally substituted with hydroxy or C_{1-4} alkoxy, or

R^2, R^3, and R^4 may be combined together with the carbon atom to which they are attached, and the $-CR^2R^3R^4$ group may form:

(a) C_{3-6} cycloalkyl, wherein the cycloalkyl may be optionally substituted with 1 to 3 substituents independently selected from the group consisting of:

(1) cyano,

(2) C_{1-4} alkyl, wherein the alkyl may be optionally substituted with hydroxy or C_{1-4} alkoxy,

(3) C_{1-4} alkoxy,

(4) halogen, and

(5) $-CO-NR^{18}R^{19}$, wherein R^{18} and R^{19} are each independently hydrogen or C_{1-4} alkyl,

(b) 4- to 7-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur atoms, wherein the heterocycloalkyl may be optionally substituted with 1 or 2 substituents independently selected from the group consisting of:

(1) hydroxy,

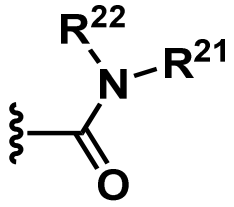
(2) C_{1-4} alkyl,

(3) C_{1-4} alkoxy, and

(4) halogen, or

any one of the ring-constituting atoms of the heterocycloalkyl may be optionally substituted with 1 or 2 oxo groups, or

(c) a group of the formula:



wherein R^{21} and R^{22} are each independently

(1) hydrogen,

(2) C_{1-4} alkyl,

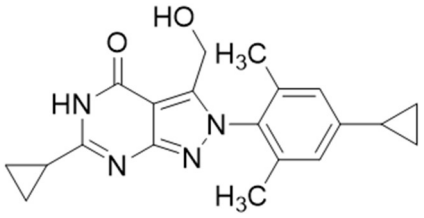
(3) C_{1-4} haloalkyl, or

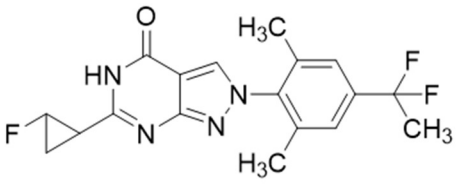
(4) 4- to 6-membered heterocycloalkyl comprising 1 or 2 heteroatoms independently selected from the group consisting of nitrogen and oxygen atoms.

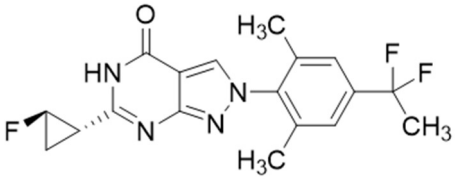
[Claim 12]

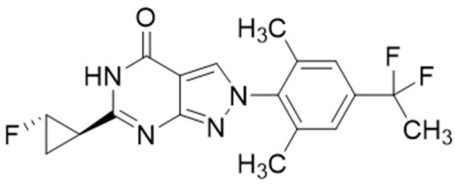
The compound according to claim 1, or a pharmaceutically

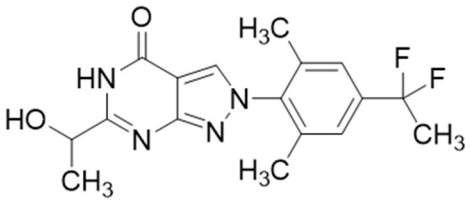
acceptable salt thereof, selected from the group consisting of the following formulae:

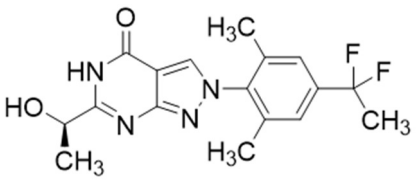

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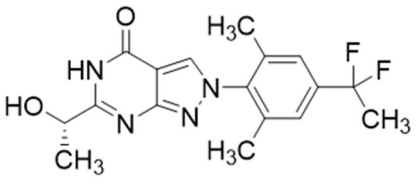

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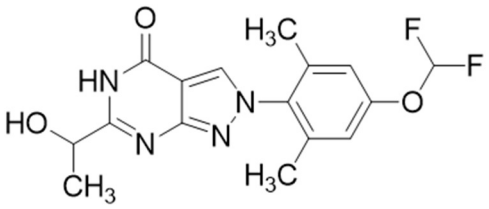

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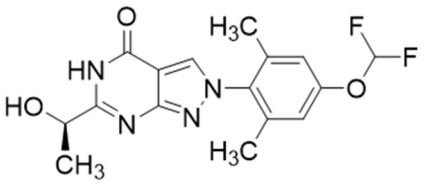

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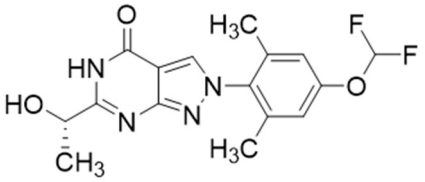

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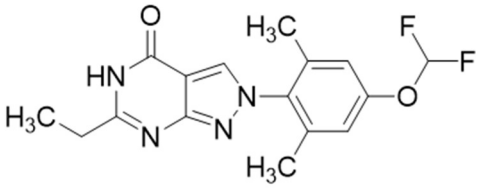

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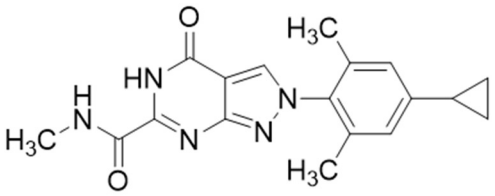

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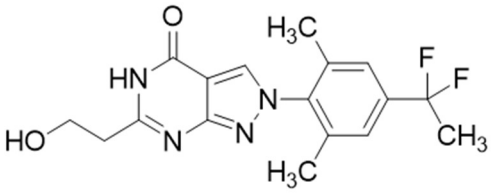

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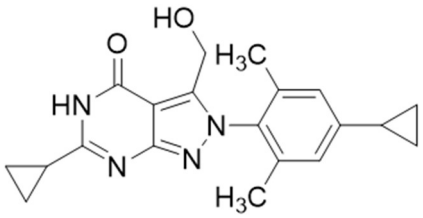

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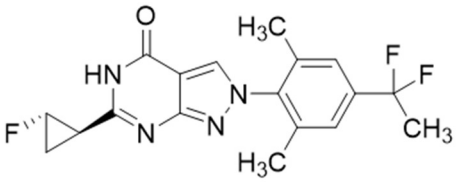

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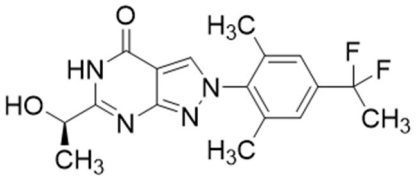

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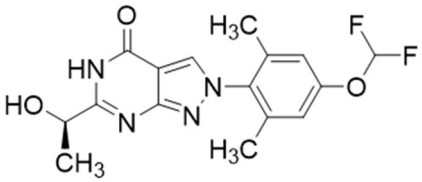
[Claim 13]

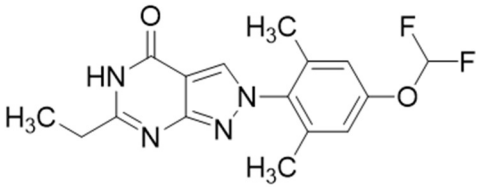
The compound according to claim 1, or a pharmaceutically acceptable salt thereof, selected from the group consisting of the following formulae:

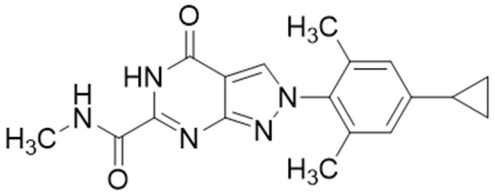

,

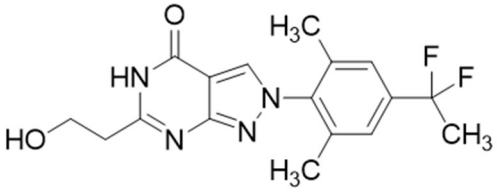

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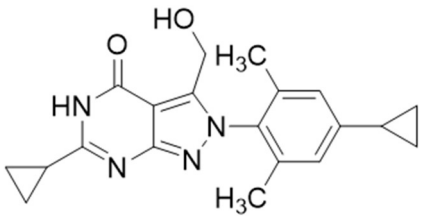

, and


.

[Claim 14]

A compound, or a pharmaceutically acceptable salt

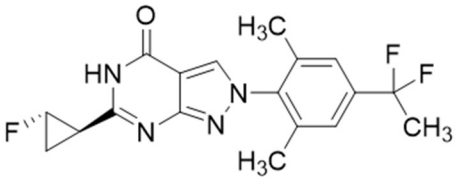
thereof, which is represented by the following structural formula:



.

[Claim 15]

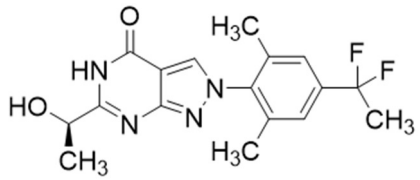
A compound, or a pharmaceutically acceptable salt thereof, which is represented by the following structural formula:



.

[Claim 16]

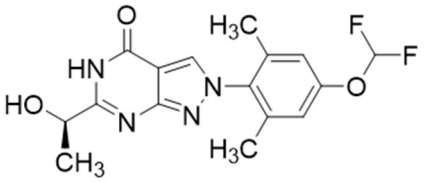
A compound, or a pharmaceutically acceptable salt thereof, which is represented by the following structural formula:



.

[Claim 17]

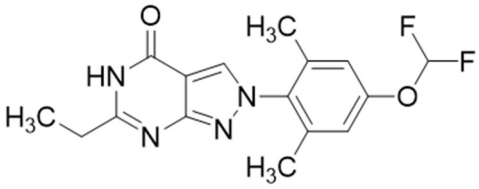
A compound, or a pharmaceutically acceptable salt thereof, which is represented by the following structural formula:



.

[Claim 18]

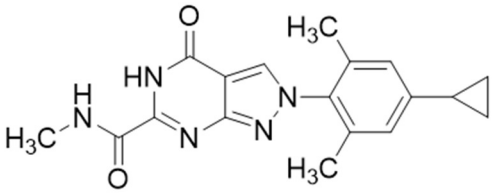
A compound, or a pharmaceutically acceptable salt thereof, which is represented by the following structural formula:



.

[Claim 19]

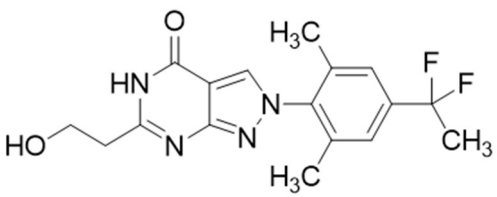
A compound, or a pharmaceutically acceptable salt thereof, which is represented by the following structural formula:



.

[Claim 20]

A compound, or a pharmaceutically acceptable salt thereof, which is represented by the following structural formula:



.

[Claim 21]

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

[Claim 22]

An NLRP3 inflammasome inhibitor comprising a compound according to any one of claims 1 to 13, or a pharmaceutically acceptable salt thereof.

[Claim 23]

Use of a compound according to any one of claims 1 to 13, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating or preventing a disease selected from the group consisting of multiple sclerosis, inflammatory bowel disease, arteriosclerosis, Cryopyrin-associated periodic syndrome, nonalcoholic steatohepatitis, gout, ischemic heart disease, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, and traumatic brain injury.

[Claim 24]

The use according to claim 23, wherein the inflammatory bowel disease is ulcerative colitis or Crohn's disease.

[Claim 25]

The use according to claim 23, wherein the Cryopyrin-associated periodic syndrome is familial cold autoinflammatory syndrome, Muckle-Wells syndrome, chronic

infantile neurologic cutaneous and articular syndrome, or neonatal onset multisystem inflammatory disease.

[Claim 26]

A compound according to any one of claims 1 to 13, or a pharmaceutically acceptable salt thereof, for use as a medicament.