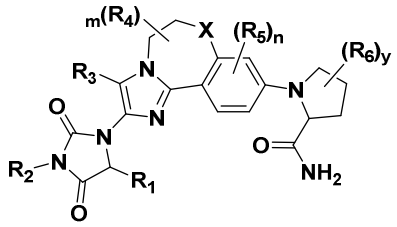
## Claims

1. A compound of Formula (I) or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof,



Formula (I)

wherein,

X is selected from O and S;

$R_1$ is selected from H, CN, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl, $C_{5-8}$ heteroaryl, $OR_a$ and $-NR_aR_b$; wherein $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl are each optionally substituted with one or more substituents selected from halogen, CN, $OR_a$, oxo, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{3-6}$ cycloalkyl and $C_{3-6}$ heterocyclyl;

$R_2$ is selected from H, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl, $C_{5-8}$ heteroaryl; wherein $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl are each optionally substituted with one or more substituents selected from halogen, CN, -OH, $-NO_2$, $C_{1-6}$ alkyl, $C_{1-6}$ haloalkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ haloalkenyl, $C_{2-6}$ alkynyl, $C_{2-6}$ haloalkynyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ halocycloalkyl, $C_{3-6}$ heterocyclyl, $C_{3-6}$ haloheterocyclyl, $C_{6-8}$ aryl, $C_{6-8}$ haloaryl, $C_{5-8}$ heteroaryl, $C_{5-8}$ haloheteroaryl, oxo, $-OR_a$, $-NR_aR_b$, $-C(O)R_a$, $-C(O)O\ R_a$, $-C(O)NR_aR_b$, $-S(O)R_a$ and $-S(O)_2R_a$;

$R_3$ is selected from H, halogen, CN, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $-OR_a$ and $-NR_aR_b$; wherein $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl are each optionally substituted with one or more substituents selected from halogen, CN, $-OR_a$, $-NR_aR_b$, $-C(O)R_a$, $-C(O)OR_a$, $-C(O)NR_aR_b$, $-S(O)R_a$ and $-S(O)_2R_a$;

$R_4$ is selected from H, halogen, CN, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, oxo, $C_{1-6}$ haloalkyl, $C_{2-6}$ haloalkenyl, $C_{2-6}$ haloalkynyl, $C_{1-6}$ alkoxy, $C_{1-6}$ halo alkoxy, $-OR_a$, $-NR_aR_b$, $-C(O)R_a$, $-C(O)OR_a$, $-C(O)NR_aR_b$, $-S(O)R_a$ and $-S(O)_2R_a$;

$R_5$ is selected from H, halogen, CN, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{1-6}$ haloalkyl, $C_{2-6}$ haloalkenyl, $C_{2-6}$ haloalkynyl, $C_{1-6}$ alkoxy, $C_{1-6}$ haloalkoxy, $-OR_a$, $-NR_aR_b$, $-S(O)R_a$ and $-S(O)_2R_a$;

$R_6$ is selected from H, halogen, CN, oxo, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{1-6}$ alkoxy, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl, $C_{5-8}$ heteroaryl, $-OR_a$, $-NR_aR_b$, $-C(O)R_a$, $-C(O)O\ R_a$, -

C(O) $NR_aR_b$, -S(O)$R_a$ and -$S(O)_2R_a$; wherein $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{1-6}$ alkoxy, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl are each optionally substituted with one or more substituents selected from halogen, CN, oxo, -$NO_2$, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, -$OR_a$, -$NR_aR_b$, -C(O)$R_a$, -C(O)O $R_a$, -C(O)$NR_aR_b$, -S(O)$R_a$ and -$S(O)_2R_a$; or,

two $R_6$ take with the C atoms which they are attached to form $C_{3-6}$ cycloalkyl or $C_{3-6}$ heterocyclyl;

$R_a$ and $R_b$ are independently selected from H, $C_{1-6}$alkyl, $C_{2-6}$alkenyl, $C_{2-6}$alkynyl, $C_{1-6}$ alkoxy, $C_{3-6}$cycloalkyl, $C_{3-6}$heterocyclyl, $C_{6-8}$aryl, $C_{5-8}$heteroaryl; wherein $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{1-6}$ alkoxy, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl, $C_{5-8}$ heteroaryl are optionally substituted with halogen, CN, -OH, -$NH_2$, $C_{1-6}$ alkyl, $C_{1-6}$ alkoxy, $C_{1-6}$ haloalkyl, $C_{1-6}$ haloalkoxy;

m is selected from 0, 1, 2, 3 and 4;

n is selected from 0, 1, 2 and 3; and

y is selected from 0, 1, 2, 3, 4, 5 and 6.

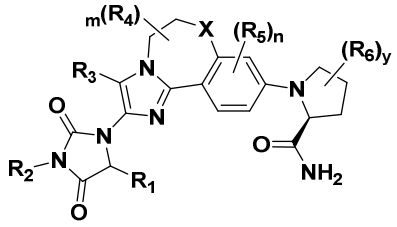
2. The compound of claim 1, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_1$ is $C_{1-6}$ alkyl or $C_{3-6}$ cycloalkyl, said $C_{1-6}$ alkyl and $C_{3-6}$ cycloalkyl can be substituted optionally and independently with halogen.

3. The compound of any one of claims 1-2, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_2$ is selected from H, $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl; said $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl are each optionally substituted with one or more substituents selected from halogen, -CN, -OH, -$NR_aR_b$ , $C_{1-6}$alkyl and $C_{1-6}$ haloalkyl; said $R_a$ and $R_b$ are independently selected from H and $C_{1-6}$ alkyl.

4. The compound of any one of claims 1-3, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_3$ is selected from H, halogen, CN, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{1-6}$ haloalkyl, $C_{2-6}$ haloalkenyl and $C_{2-6}$ haloalkynyl.

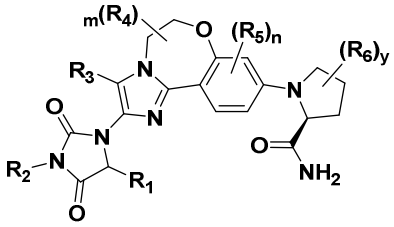
5. The compound of any one of claims 1-4, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_6$ is selected from H, halogen, CN, -$NH_2$, oxo, -OH, $C_{1-6}$ alkyl, $C_{2-6}$ alkenyl, $C_{2-6}$ alkynyl, $C_{1-6}$ alkoxy, $C_{1-6}$ haloalkyl, $C_{2-6}$ haloalkenyl, $C_{2-6}$ haloalkynyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl.

6. The compound of any one of claims 1-5, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein the compound is of Formula (II):



Formula (II).

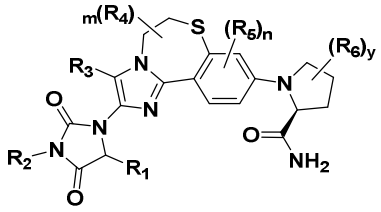
7. The compound of any one of claims 1-6, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein the compound is of Formula(III-1):



Formula (III-1)

wherein, $R_1$ is $C_{1-6}$ alkyl or $C_{1-6}$ haloalkyl.

8. The compound of any one of claims 1-6, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein the compound is of Formula(III-2):

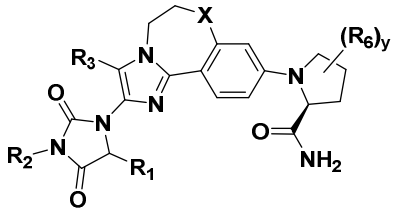


Formula (III-2).

9. The compound of any one of claims 1-8, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_3$ is selected from H, halogen, $C_{1-6}$ alkyl and $C_{2-6}$ alkenyl.

10. The compound of any one of claims 1-9, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_4$ and $R_5$ are both H.

11. The compound of any one of claims 1-6, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein the compound is of Formula(IV):



Formula (IV)

wherein:

$R_1$ is $C_{1-6}$alkyl or $C_{1-6}$ haloalkyl;

$R_2$ is selected from H, $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl; wherein $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_{6-8}$ aryl and $C_{5-8}$ heteroaryl are each optionally substituted with one or more substituents selected from halogen, -CN, -OH, -$NR_aR_b$ , $C_{1-6}$alkyl, $C_{1-6}$haloalkyl, $C_{1-6}$ alkoxy and $C_{1-6}$ halo alkoxy;

$R_3$ is selected from H, halogen, $C_{1-6}$ alkyl and $C_{2-6}$ alkenyl;

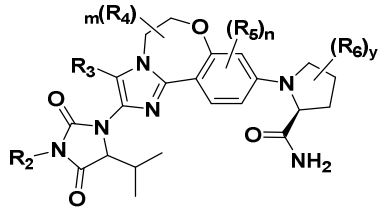
$R_6$ is selected from H, halogen, -$NH_2$, oxo, -OH, $C_{1-6}$alkyl, $C_{1-6}$ alkoxy, $C_{1-6}$ haloalkyl, $C_{1-6}$ halo alkoxy, $C_{3-6}$ cycloalkyl and $C_{6-8}$ aryl;

$R_a$ and $R_b$ are independently selected from H and $C_{1-6}$ alkyl; and

y is selected from 0, 1, 2, 3, 4, 5 and 6.

12. The compound of claim 11, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein X is O.

13. The compound of any one of claims 1-7, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein the compound is of Formula(V):



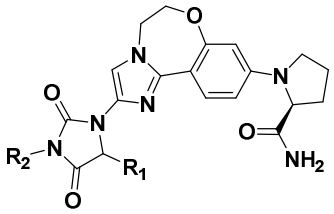
Formula (V).

14. The compound of any one of claims 1-13, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_2$ is selected from H, $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_6$ aryl and $C_{5-6}$ heteroaryl; wherein $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_6$ aryl and $C_{5-6}$

heteroaryl are each optionally substituted with 1 or more substituents selected from halogen, -CN, -OH, -N-$(CH_3)_2$ , $C_{1-6}$ alkyl and $C_{1-6}$ haloalkyl.

15. The compound of any one of claims 1-14, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_6$ is selected from H, halogen, -$NH_2$, oxo, -OH, $C_{1-6}$ alkyl, $C_{1-6}$ alkoxy, $C_{3-6}$ cycloalkyl and $C_6$ aryl.

16. The compound of any one of claims 1-7, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein the compound is of Formula(VI):




Formula (VI)

wherein,

$R_1$ is selected from $C_{1-6}$ alkyl and $C_{1-6}$ haloalkyl;

$R_2$ is selected from H, $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_6$ aryl and $C_{5-6}$ heteroaryl; wherein $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_6$ aryl and $C_{5-6}$ heteroaryl are each optionally substituted with one or more substituents selected from halogen, -CN, -OH, -N-$(CH_3)_2$ , $C_{1-6}$ alkyl and $C_{1-6}$ haloalkyl.

17. The compound of any one of claims 1-16, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_1$ is $C_{1-4}$ alkyl, wherein $R_1$ is substituted optionally with halogen, preferably, $R_1$ is selected from -$CH(CH_3)_2$, -$C(CH_3)_3$, -$CF_3$ and -$CHF_2$.

18. The compound of any one of claims 1-17, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein $R_2$ is selected from H, $C_{1-6}$ alkyl, $C_{3-6}$ cycloalkyl, $C_{3-6}$ heterocyclyl, $C_6$ aryl and $C_5$-$C_6$ heteroaryl, wherein $R_2$ is substituted optionally with halogen, preferably, $R_2$ is selected from -$CH_3$, -$CH_2CH_3$, -$CH(CH_3)_2$, -$CH_2CF_3$, cyclopropyl, cyclobutyl, phenyl and pyridyl; wherein -$CH_3$, -$CH_2CH_3$, -$CH(CH_3)_2$, -$CH_2CF_3$, cyclopropyl, cyclobutyl, phenyl and pyridyl are each optionally substituted with halogen, more preferably, $R_2$ is selected from -$CH_3$, -$CH(CH_3)_2$, cyclopropyl, phenyl and halogen substituted phenyl .

19. The compound of claim 1, or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof, wherein the compound is selected from:

1) (2S)-1-(2-(5-isopropyl-3-methyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
2) (2S)-1-(2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
3) (2S)-1-(2-(5-isopropyl-2,4-dioxo-3-(2,2,2-trifluoroethyl)imidazolidine-1-yl)-5,6-dihydrobenzo[f] imidazo [1, 2-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;
4) (2S)-1-(2-(3-(4-fluorophenyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
5) (2S)-1-(2-(5-cyclopropyl -3-methyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
6) (2S)-1-(2-(3-cyclobutyl-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
7) (2S)-1-(2-(3-ethyl-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
8) (2S)-1-(2 -(5-difluoromethyl-3-methyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
9) (2S)-1-(2-(5-isopropyl-2,4-dioxo-3-phenylimidazolidine-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
10) (S)-1-(2-((S)-5-isopropyl-2,4-dioxo-3-phenylimidazolidine-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;
11) (S)-1-(2-((R)-5-isopropyl-2,4-dioxo-3-phenylimidazolidine-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;
12) (2S)-1-(2-(5-isopropyl-2,4-dioxo-3-(4-(trifluoromethyl)phenyl)imidazolidine-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2 -d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
13) (2S)-1-(2-(5-isopropyl-2,4-dioxo-3-propylimidazolidine-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;
14) (2S)-1-(2-(3-cyclopropyl -5-isopropyl)-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)-2-methylpyrrolidine-2-carboxamide;

15) (2S)-1-(2-(3-cyclopropyl -5-isopropyl)-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] thiazepin-9-yl)-4,4-difluoropyrrolidine-2-carboxamide;

16) (2S)-1-(2-(5-isopropyl-3-(1-methyl-1H-1,2,4-triazol-5-yl)-2,4-dioxoimidazolidin-1-yl)-5,6 -dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

17) (2S,4S)-4-amino-1-(2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f] imidazo [1,2-d ] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

18) (2S)-1-(2-(3-(2-fluorophenyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

19) (2S)-1-(2-(3-(4-chlorophenyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;

20) (2S)-4-(tertbutoxy)-1-(2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f] imidazo [1,2] -d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

21) (2S)-1-(2-(3-cyclopropyl -5-isopropyl)-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)-4,4-dimethylpyrrolidine-2-carboxamide;

22) (2S)-1-(2-(3-(2,2-difluoroethyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d ] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

23) (2S)-1-(2-(3,5-diisopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin- 9-yl)pyrrolidine-2-carboxamide;

24) (2S)-1-(2-(3-cyclopropyl -5-isopropyl)-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)-4-phenylpyrrolidine-2-carboxamide;

25) (2S)-1-(2-(3-(3-chloro5-cyanophenyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2 -d] [1,4] thiazepin-9-yl)pyrrolidine-2-carboxamide;

26) (2S)-1-(2-(3,5-diisopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]thiazepin- 9-yl)pyrrolidine-2-carboxamide;

27) (2S)-1-(2- (3-azetidin-3-yl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d ] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;

28) (2S)-1-(2-(3-methyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;

29) (2S)-1-(2- (5-tertbutyl-3-methyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;

30) (S)-1-(2-((R)-3-(4-fluorophenyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2]-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

31) (S)-1-(2-((S)-3-(4-fluorophenyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2] -d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

32) (2S)-1-(2-((5R)-3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

33) (2S)-1-(2-((5S)-3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

34) (2S)-1-(2-(3-(2-hydroxyethyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

35) (2S)-1-(2-(3-(2-fluoroethyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

36) (2S)-1-(2-(3-(2-(dimethylamino)ethyl)-5-)isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2- d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

37) (2S)-1-(2-(3-cyclopropyl -5-isopropyl)-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]thiazepin-9-yl)pyrrolidine-2-carboxamide;

38) (2S)-1-(2-(3-(6-fluoropyridin-3-yl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2 -d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

39) (2S)-1-(2-(3-(5-fluoropyridin-3-yl)-5-isopropyl-2,4-dioxoimidazolidin1-yl)-5,6-dihydrobenzo[f]imidazo[1,2] -d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

40) (2S)-1-(2-(3-(3-cyano-5-fluorophenyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2 -d] [1,4]oxazepin-9-yl)-4-fluorinepyrrolidine-2-carboxamide;

41) (2S)-1-(2-(3-(3-chloropyrimidin-2-yl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2 -d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

42) (2S)-1-(2-(3-cyclopentyl-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] oxazepin-9-yl)pyrrolidine-2-carboxamide;

43) (2S)-1-(2-(3-(cyanomethyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

44) (2S)-1-(2-(5-isopropyl-3-methyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4] thiazepin-9-yl)pyrrolidine-2-carboxamide;

45) (2S)-1-(2-(3-(2,2-difluoroethyl)-5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d ] [1,4]thiazepin-9-yl)pyrrolidine-2-carboxamide;

46) (2S)-1-(2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-3-vinyl-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

47) (2S)-1-(3-chloro-2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide;

48) (2S)-1-(2-(3-cyclopropyl -5-(difluoromethyl)-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1, 4]thiazepin-9-yl)pyrrolidine-2-carboxamide;

49) (2S,3S)-1-(2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)-3- hydroxypyrrolidine -2-carboxamide;

50) (2S)-1-(2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-3-methyl-5,6-dihydrobenzo[f]imidazo[1,2-d] [ 1,4]oxazepin-9-yl)-4-oxopyrrolidine-2-carboxamide;

51) (2S)-4-cyclohexyl-1-(2-(3-cyclopropyl -5-isopropyl-2,4-dioxoimidazolidin-1-yl)-5,6-dihydrobenzo[f]imidazo[1,2-d] [1,4]oxazepin-9-yl)pyrrolidine-2-carboxamide; and

52) (2S)-1-(2-(3-cyclopropyl -5-isopropyl-2, 4-dioxoimidazolidin-1-yl)-5, 6-dihydrobenzo[f] imidazo [1, 2-d] [1, 4] thiazepin-9-yl)-5-oxopyrrolidine-2-carboxamide.

20. A pharmaceutical composition, which comprises: a) a therapeutically effective amount of at least one compound of any one of claims 1-19 or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof and b) at least one pharmaceutical acceptable excipient, preferably a weight ratio of a) and b) is in the range from 0.0001 to 10.

21. The compound of any one of claims 1-19 or a stereoisomer, geometric isomer or tautomer, or a pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof or the pharmaceutical composition of claim 20 for use as a medicament.

22. The compound, or a stereoisomer, geometric isomer, tautomer, pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof or the pharmaceutical composition for use of claim 21, wherein the said medicament is used to treat, prevent, delay or stop the occurrence or progression of cancer or cancer metastasis.

23. The compound, or a stereoisomer, geometric isomer, tautomer, pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof or the pharmaceutical composition for use of claim 21, wherein the medicament is used for the treatment of the disease mediated by PI3K, wherein the PI3K is PI3Kα, PI3Kβ, PI3Kδ and /or PI3Kγ, preferably the PI3K is PI3Kα, more preferably the disease mediated by PI3K is cancer.

24. The compound, or a stereoisomer, geometric isomer, tautomer, pharmaceutically acceptable salt, solvate, chelate, non-covalent complex or prodrug thereof or the pharmaceutical composition for use of claim 23, wherein the cancer is selected from sarcoma, prostate cancer, breast cancer, pancreatic cancer, gastrointestinal cancer, colorectal cancer, thyroid cancer, liver

cancer, adrenal cancer, glioma, endometrial cancer, melanoma, kidney cancer, bladder cancer, uterine cancer, vagina cancer, ovarian cancer, multiple myeloma, esophageal cancer, leukemia, brain cancer, oral and pharyngeal cancer, laryngeal cancer, lymphoma, basal cell carcinoma, polycythemia vera, essential thrombocythemia.

5