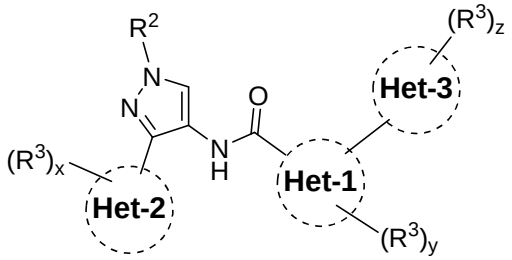
Claims

1. A compound having a formula



or salt thereof, wherein:

R^2 is H, substituted or unsubstituted aliphatic, substituted or unsubstituted heteroaliphatic, substituted or unsubstituted heterocycloaliphatic, substituted or unsubstituted aryl, amide, substituted or unsubstituted heterocyclyl or substituted or unsubstituted araliphatic;

each R^3 independently is H, substituted or unsubstituted aliphatic, halogen, substituted or unsubstituted heteroaliphatic, substituted or unsubstituted -O-aliphatic, substituted or unsubstituted heterocyclyl, substituted or unsubstituted aryl, substituted or unsubstituted araliphatic, substituted or unsubstituted –O-heterocyclyl, hydroxyl, nitro, cyano, carboxyl, carboxyl ester, acyl, amide, amino, sulfonyl, sulfonamide, sulfanyl, sulfinyl, haloalkyl, alkylphosphate, or alkylphosphonate, wherein R^3 is not pyridinyl;

a substituent for substituting one or more hydrogen atoms on a saturated carbon atom in the specified group or moiety is $-R^{60}$, halo, =O, $-OR^{70}$, $-SR^{70}$, $-N(R^{80})_2$, haloalkyl, perhaloalkyl, -CN, $-NO_2$, $=N_2$, $-N_3$, $-SO_2R^{70}$, $-SO_3^-M^+$, $-SO_3R^{70}$, $-OSO_2R^{70}$, $-OSO_3^-$ M^+, $-OSO_3R^{70}$, $-P(O)(O^-)_2(M^+)_2$, $-P(O)(O^-)_2M^{2+}$, $-P(O)(OR^{70})O^-M^+$, $-P(O)(OR^{70})_2$, $-C(O)R^{70}$, $-C(S)R^{70}$, $-C(NR^{70})R^{70}$, $-CO_2^-M^+$, $-CO_2R^{70}$, $-C(S)OR^{70}$, $-C(O)N(R^{80})_2$, $-C(NR^{70})(R^{80})_2$, $-OC(O)R^{70}$, $-OC(S)R^{70}$, $-OCO_2^-M^+$, $-OCO_2R^{70}$, $-OC(S)OR^{70}$, $-NR^{70}C(O)R^{70}$, $-NR^{70}C(S)R^{70}$, $-NR^{70}CO_2^-M^+$, $-NR^{70}CO_2R^{70}$, $-NR^{70}C(S)OR^{70}$, $-NR^{70}C(O)N(R^{80})_2$, $-NR^{70}C(NR^{70})R^{70}$ and $-NR^{70}C(NR^{70})N(R^{80})_2$, where R^{60} is $C_{1\text{-}6}$alkyl optionally substituted with 1, 2, or 3 OH; each R^{70} is independently for each occurrence hydrogen or R^{60}; each R^{80} is independently for each occurrence R^{70} or alternatively, two R^{80} groups, taken together with the nitrogen atom to which they are bonded, form a 3- to 7-membered heteroalicyclyl which optionally includes from 1 to 4 of the same or different additional heteroatoms selected from O, N and S, of which N optionally has H or C_1-C_3alkyl substitution; and each M^+ is a counter ion with a net single positive charge;

a substituent for substituting one or more hydrogen atoms on unsaturated carbon atoms in groups containing unsaturated carbons is $-R^{60}$, halo, $-O^-M^+$, $-OR^{70}$, $-SR^{70}$, $-S^-M^+$, $-N(R^{80})_2$, perhaloalkyl, -CN, -OCN, -SCN, -NO, $-NO_2$, $-N_3$, $-SO_2R^{70}$, $-SO_3^-M^+$, $-SO_3R^{70}$, $-OSO_2R^{70}$, $-OSO_3^-M^+$, $-OSO_3R^{70}$, $-PO_3^{-2}(M^+)_2$, $-PO_3^{-2}M^{2+}$, $-P(O)(OR^{70})O^-M^+$, $-P(O)(OR^{70})_2$, $-C(O)R^{70}$, $-C(S)R^{70}$, $-C(NR^{70})R^{70}$, $-CO_2^-M^+$, $-CO_2R^{70}$, $-C(S)OR^{70}$, $-C(O)NR^{80}R^{80}$, $-C(NR^{70})N(R^{80})_2$, $-OC(O)R^{70}$, $-OC(S)R^{70}$, $-OCO_2^-$ M^+, $-OCO_2R^{70}$, $-OC(S)OR^{70}$, $-NR^{70}C(O)R^{70}$, $-NR^{70}C(S)R^{70}$, $-NR^{70}CO_2^-$ M^+, $-NR^{70}CO_2R^{70}$, $-NR^{70}C(S)OR^{70}$, $-NR^{70}C(O)N(R^{80})_2$, $-NR^{70}C(NR^{70})R^{70}$ and $-NR^{70}C(NR^{70})N(R^{80})_2$,

provided that in case of substituted alkene or alkyne, the substituents are not $-O^-M^+$, $-OR^{70}$, $-SR^{70}$, or $-S^-M^+$;

a substituent for substituting one or more hydrogen atoms on nitrogen atoms in groups containing such nitrogen atoms is $-R^{60}$, $-O^-M^+$, $-OR^{70}$, $-SR^{70}$, $-S^-M^+$, $-N(R^{80})_2$, perhaloalkyl, -CN, -NO, $-NO_2$, $-S(O)_2R^{70}$, $-SO_3^-M^+$, $-SO_3R^{70}$, $-OS(O)_2R^{70}$, $-OSO_3^-M^+$, $-OSO_3R^{70}$, $-PO_3^{2-}(M^+)_2$, $-PO_3^{2-}M^{2+}$, $-P(O)(OR^{70})O^-M^+$, $-P(O)(OR^{70})(OR^{70})$, $-C(O)R^{70}$, $-C(S)R^{70}$, $-C(NR^{70})R^{70}$, $-CO_2R^{70}$, $-C(S)OR^{70}$, $-C(O)NR^{80}R^{80}$, $-C(NR^{70})NR^{80}R^{80}$, $-OC(O)R^{70}$, $-OC(S)R^{70}$, $-OCO_2R^{70}$, $-OC(S)OR^{70}$, $-NR^{70}C(O)R^{70}$, $-NR^{70}C(S)R^{70}$, $-NR^{70}CO_2R^{70}$, $-NR^{70}C(S)OR^{70}$, $-NR^{70}C(O)N(R^{80})_2$, $-NR^{70}C(NR^{70})R^{70}$ and $-NR^{70}C(NR^{70})N(R^{80})_2$;

x is from 1 to 4;

y is 1 or 2;

z is from 1 to 3;

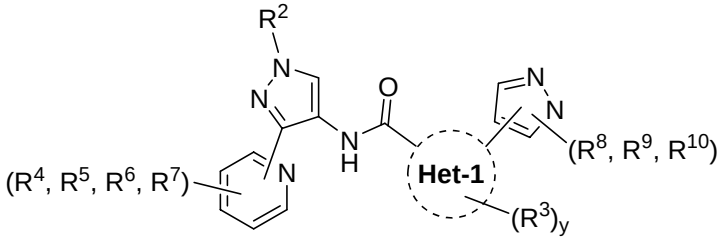
Het-1 is furyl, thiazolyl or oxazolyl;

Het-2 is 5- or 6- membered heteroaryl; and

Het-3 is pyrazolyl.

2. The compound of claim 1, wherein Het-2 is pyridinyl, pyrimidinyl, pyrazinyl, oxadiazolyl, or thiazolyl.

3. The compound of claim 1 or claim 2, wherein the compound has a formula



wherein:

R^4, R^5, R^6 and R^7 are each independently H, substituted or unsubstituted aliphatic, halogen, haloalkyl, substituted or unsubstituted heteroaliphatic, alkoxy, substituted or unsubstituted heterocyclyl, or substituted or unsubstituted –O-heterocyclyl;

R^8 and R^9 are each independently H , halogen, haloalkyl, or substituted or unsubstituted alkyl; and

R^{10} is H, substituted or unsubstituted aliphatic, substituted or unsubstituted -O-aliphatic, substituted or unsubstituted heteroaliphatic, carboxyl ester, substituted or unsubstituted aryl, acyl, substituted or unsubstituted araliphatic, substituted or unsubstituted heterocyclyl, sulfonyl, amino, NO_2, CN, OH, haloalkyl, alkyl phosphate or alkylphosphonate.

4. The compound of claim 3, wherein:

R^5 is H, F, CF_3, methoxy, morpholin-4-yl, 1-methylpiperidin-4-yl, $-O-CH_2C(CH_3)_2OH$, or –O-(oxetan-3-yl);

each of R^4, R^6 and R^7 independently is H, F or CF_3; or

a combination thereof.

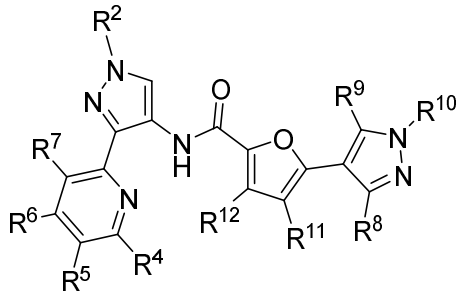
5. The compound of claim 4, wherein:

R^3 is H;

R^2 is H, substituted or unsubstituted alkyl, haloalkyl, substituted or unsubstituted cycloaliphatic, substituted or unsubstituted heteroaliphatic, or substituted or unsubstituted heterocycloaliphatic;

R^{10} is H, substituted or unsubstituted alkyl, carboxyl ester, acyl, alkyl phosphate, alkyl phosphonate or substituted or unsubstituted aralkyl.

6. The compound of any one of claims 3-5, wherein the compound has a formula selected from



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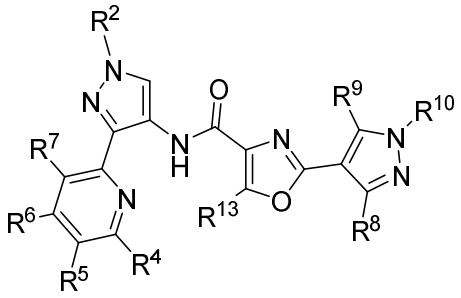
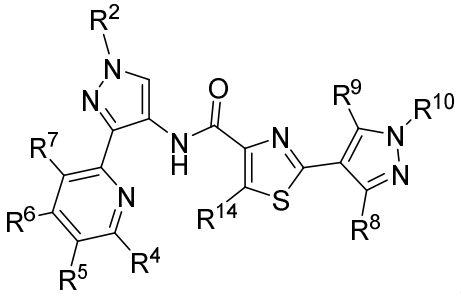


, or



; and

each of R^{11}, R^{12}, R^{13}, and R^{14} independently is H or substituted or unsubstituted alkyl.

7. (New) The compound of any one of claims 1-6, wherein R^2 is H, alkyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, heteroaliphatic, or heterocycloaliphatic.

8. The compound of any one of claims 1-7, wherein R^2 is cyclobutyl, azetidinyl, morpholinyl, 4-methylpiperazinyl, oxetanyl, tetrahydrofuranyl, or tetrahydropyranyl.

9. The compound any one of claims 1-5, wherein R^2 is H, methyl, difluoromethyl, trifluoroethyl, isopropyl, tetrahydropyranyl, tetrahydrofuranyl, oxetanyl, N-*tert*-butyloxycarbonyl azetidin-3-yl, 3-methyoxy cyclobutyl, 3-benzyloxycyclobutyl, 3-ethyloxy cyclobutyl, 3-isopropyl cyclobutyl, 3-hydroxy cyclobutyl, 4-ethoxy cyclohexyl, 4-hydroxy cyclohexyl, 4-((2,2-difluoroethyl)amino)cyclohexyl, 3-ethyloxy cyclopentyl, or 3-hydroxy cyclopentyl.

10. The compound of claim 1, or a salt thereof, wherein the compound is selected from:

II-1: N-(1-(2-hydroxy-2-methylpropyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-2: 1-(isobutyryloxy)ethyl 4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazole-1-carboxylate;

II-3: *tert*-butyl (R)-(3-methyl-1-(4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)-1-oxobutan-2-yl)carbamate;

II-4: 2-(1-((5-methyl-2-oxo-1,3-dioxol-4-yl)methyl)-1H-pyrazol-4-yl)-N-(1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-5: 1-methylcyclopropyl 4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazole-1-carboxylate;

II-6: 1-((4-methoxybenzyl)oxy)-2-methylpropan-2-yl 4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazole-1-carboxylate;

II-7: diethyl ((4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl)phosphonate;

II-8: sodium ((4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl)phosphonate;

II-9: ((4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl)phosphonic acid;

II-10: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-11: N-(1-((1,3-cis)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-12: N-(1-((1,3-trans)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-13: N-(1-((1,3-cis)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-14: N-(1-((1,3-cis)-3-hydroxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-15: N-(1-((1s,3s)-3-(dimethylamino)cyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

N-(1-(3-(dimethylamino)cyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-16: (4-(4-((1-((1,3-cis)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate bis-sodium salt;

II-17: (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl dihydrogen phosphate;

II-18: *N*-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(1*H*-pyrazol-4-yl)thiazole-4-carboxamide, formic acid salt;

II-19: N-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(5-(trifluoromethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide, formic acid salt;

II-20: N-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(5-(trifluoromethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-21: *N*-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(3-methyl-1*H*-pyrazol-4-yl)thiazole-4-carboxamide, formic acid salt;

II-22: *N*-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(3-methyl-1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-23: 2-(3,5-dimethyl-1*H*-pyrazol-4-yl)-*N*-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)thiazole-4-carboxamide, formic acid salt;

II-24: 2-(3,5-dimethyl-1*H*-pyrazol-4-yl)-*N*-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-25: N-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-26: *N*-(1-methyl-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-27: 2-(3-methyl-1*H*-pyrazol-4-yl)-*N*-(1-methyl-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-28: *N*-(1-(2-methoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-29: *N*-(1-(2-methoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(3-methyl-1*H*-pyrazol-4-yl)thiazole-4-carboxamide, formic acid salt;

II-30: *N*-(1-(2-methoxyethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(3-methyl-1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-31: N-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-32: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-33: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-34: *N*-(1-(oxetan-3-yl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-35: (4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl dihydrogen phosphate;

II-36: Sodium (4-(4-((1-methyl-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1*H*-pyrazol-1-yl)methyl phosphate;

II-37: *N*-(1-(2-(2-methoxyethoxy)ethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-38: potassium (4-(4-((1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate;

II-39: N-(1-(2-(2-methoxyethoxy)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-40: N-(1-(2-(2-methoxyethoxy)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-41: 2-(3-methyl-1*H*-pyrazol-4-yl)-*N*-(1-(oxetan-3-yl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)thiazole-4-carboxamide, formic acid salt;

II-42: 2-(3-methyl-1*H*-pyrazol-4-yl)-*N*-(1-(oxetan-3-yl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-43: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(tetrahydrofuran-3-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-44: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(tetrahydrofuran-3-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-45: 2-(3-methyl-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-((tetrahydro-2H-pyran-4-yl)methyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-46: 2-(3-methyl-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-((tetrahydro-2H-pyran-4-yl)methyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-47: N-(1-((3-(hydroxymethyl)oxetan-3-yl)methyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-48: N-(1-((3-(hydroxymethyl)oxetan-3-yl)methyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-49: *N*-(1-(2-(diethylamino)ethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(1*H*-pyrazol-4-yl)thiazole-4-carboxamide, formic acid salt;

II-50: *N*-(1-(2-(diethylamino)ethyl)-3-(pyridin-2-yl)-1*H*-pyrazol-4-yl)-2-(1*H*-pyrazol-4-yl)thiazole-4-carboxamide;

II-51: 2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)-N-(1-(3-methoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-52: N-(1-(2-fluoroethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-53: 2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-54: *tert*-Butyl-3-[4-{2-(1H-pyrazole-4-yl)thiazole-2-carboxamido}-3-(pyridine-2-yl)-1H-pyrazol-1-yl]azetidine-1-carboxylate, free base;

II-55: N-{1-(Azetidin-3-yl)-3-(pyridine-2-yl)-1H-pyrazol-4-yl}-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide, TFA salt;

II-56: N-{1-(Azetidin-3-yl)-3-(pyridine-2-yl)-1H-pyrazol-4-yl}-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-57: N-{1-(3-Methoxycyclobutyl)-3-(pyridine-2-yl)-1H-pyrazol-4-yl}-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide, free base, Cis isomer;

II-58: N-(3-(5-methoxypyridin-2-yl)-1-methyl-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-59: N-(1-isopropyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-60: N-(1-(2-morpholinoethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-61: N-(1-(2-(4-methylpiperazin-1-yl)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-65: N-(3-(3-fluoropyridin-2-yl)-1-((1s,3s)-3-hydroxycyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-66: 2-(1H-pyrazol-3-yl)-N-(3-(pyridin-2-yl)-1-(2-(2,2,2-trifluoroethoxy)ethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-71: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(5-fluoro-1-((2-(trimethylsilyl)ethoxy)methyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-72: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(5-fluoro-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-73: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(5-fluoro-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-74: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(1,3,4-oxadiazol-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-75: N-(3-(1,3,4-oxadiazol-2-yl)-1-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-76: N-(1-((1s,3s)-3-isopropoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-77: potassium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate;

II-78: calcium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate;

II-79: N-(1-((1r,3r)-3-hydroxy-3-methylcyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-80: ammonium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate;

II-81: 5-amino-5-carboxypentan-1-aminium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate;

II-82: 1-(4-amino-4-carboxybutyl)guanidinium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate;

II-83: (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl dihydrogen phosphate;

II-84: 1,3-dihydroxy-2-(hydroxymethyl)propan-2-aminium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl hydrogen phosphate;

II-85: triethylammonium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl hydrogen phosphate;

II-86: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(5-(trifluoromethyl)pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-87: N-(1-(3-hydroxy-3-methylcyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-88: N-(1-(difluoromethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-89: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(3-(trifluoromethyl)pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-90: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(6-(trifluoromethyl)pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-91: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-(trifluoromethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-92: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-93: 2-(3,5-dimethyl-1H-pyrazol-4-yl)-N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-94: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(2,2,2-trifluoroethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-95: N-(1-(difluoromethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-(trifluoromethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-96: N-(1-(difluoromethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-97: N-(1-(difluoromethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1-(2,2,2-trifluoroethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-98: 2-(1-(difluoromethyl)-1H-pyrazol-4-yl)-N-(1-(difluoromethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-99: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(6-(trifluoromethyl)pyridin-2-yl)-1H-pyrazol-4-yl)-2-(3-methyl-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-100: 2-(3-methyl-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(2,2,2-trifluoroethyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-101: N-(1-((1s,3s)-3-hydroxycyclobutyl)-3-(pyrazin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-102: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyrimidin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-103: 2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(3,3,3-trifluoro-2-hydroxypropyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-104: 2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(3,3,3-trifluoro-2-hydroxypropyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-105: N-(1-(dimethylcarbamoyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-106: N-(1-(dimethylcarbamoyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-107: 2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(3,3,3-trifluoro-2-hydroxy-2-(trifluoromethyl)propyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-108: 2-(1-(4-methoxybenzyl)-1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-(3,3,3-trifluoro-2-hydroxy-2-(trifluoromethyl)propyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-109: N-(1-(2-ethoxyethyl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-110: N-(1-(2-ethoxyethyl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-111: 2-(1H-pyrazol-4-yl)-N-(1-(tetrahydro-2H-pyran-4-yl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-112: 2-(1H-pyrazol-4-yl)-N-(1-(tetrahydro-2H-pyran-4-yl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-113: N-(1-(2-(2-methoxyethoxy)ethyl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-114: N-(1-(2-(2-methoxyethoxy)ethyl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-115: 2-(1H-pyrazol-4-yl)-N-(1-(tetrahydrofuran-3-yl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-116: 2-(1H-pyrazol-4-yl)-N-(1-(tetrahydrofuran-3-yl)-3-(thiazol-2-yl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-117: N-(1-(2-(diethylamino)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-118: N-(1-(2-(2-fluoroethoxy)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-119: N-(1-(2-(2-fluoroethoxy)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-120: N-(1-benzyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-121: N-(1-cyclobutyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-122: N-(1-(2-(2,2-difluoroethoxy)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-123: N-(1-(((1r,3r)-3-hydroxycyclobutyl)methyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-124: N-(1-(((1r,3r)-3-hydroxycyclobutyl)methyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-125: N-(1-(dimethylcarbamoyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-126: N-(1-(dimethylcarbamoyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-127: N-(1-((1s,3s)-3-(ethoxy-d5)cyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-128: N-(1-(diethylcarbamoyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-129: N-(1-(morpholine-4-carbonyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-130: N-(1-((1s,3s)-3-(2-fluoroethoxy)cyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-131: N-(1-(morpholine-4-carbonyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-132: N-(1-(3-fluorocyclobut-2-en-1-yl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-133: N-(1-(3-fluorocyclobut-2-en-1-yl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-134: N-(1-(3,3-difluorocyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-135: N-(1-(3,3-difluorocyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-140: N-(3-(3-fluoropyridin-2-yl)-1-(1,4-dioxaspiro[4.5]decan-8-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-141: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-((1r,3r)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-142: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-((1r,3r)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-143: N-(1-((1r,4r)-4-hydroxycyclohexyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-144: N-(1-((1r,4r)-4-hydroxycyclohexyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-145: N-(1-((1r,4r)-4-ethoxycyclohexyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-146: N-(1-((1r,4r)-4-ethoxycyclohexyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-147: N-(1-((1S,3R)-3-ethoxycyclopentyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-148: N-(1-((1S,3R)-3-ethoxycyclopentyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-149: N-(1-((1S,3R)-3-hydroxycyclopentyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-150: N-(1-((1S,3R)-3-hydroxycyclopentyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-151: N-(1-((1S,3S)-3-hydroxycyclopentyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-152: N-(1-((1S,3S)-3-hydroxycyclopentyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-153: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(5-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-154: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(5-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-155: N-(1-((1S,3R)-3-ethoxy-2-fluorocyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-156: N-(1-((1S,3R)-3-ethoxy-2-fluorocyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-157: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(3-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-158: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(4-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-159: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(4-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-160: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(6-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-161: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-((1s,3s)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-162: 2-(1H-pyrazol-4-yl)-N-(3-(pyridin-2-yl)-1-((1s,3s)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-163: (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(3-fluoropyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl dihydrogen phosphate;\

II-164: sodium (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(3-fluoropyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl phosphate;

II-165: N-(3-(3-fluoropyridin-2-yl)-1-((1s,3s)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-166: N-(3-(3-fluoropyridin-2-yl)-1-((1s,3s)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-167: N-(3-(3-fluoropyridin-2-yl)-1-((1r,3r)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-168: N-(3-(3-fluoropyridin-2-yl)-1-((1r,3r)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-169: N-(1-((1r,4r)-4-ethoxycyclohexyl)-3-(3-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-170: N-(3-(6-fluoropyridin-2-yl)-1-((1s,3s)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide formate;

II-171: N-(3-(6-fluoropyridin-2-yl)-1-((1s,3s)-3-(2,2,2-trifluoroethoxy)cyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-172: N-(3-(6-fluoropyridin-2-yl)-1-((1s,3s)-3-hydroxycyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-173: (4-(4-((1-((1s,3s)-3-ethoxycyclobutyl)-3-(6-fluoropyridin-2-yl)-1H-pyrazol-4-yl)carbamoyl)thiazol-2-yl)-1H-pyrazol-1-yl)methyl dihydrogen phosphate;

II-174: N-(3-(3,6-difluoropyridin-2-yl)-1-((1s,3s)-3-ethoxycyclobutyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-175: N-(1-((1s,4s)-4-ethoxycyclohexyl)-3-(3-fluoropyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-176: N-(3-(3,6-difluoropyridin-2-yl)-1-((1r,4r)-4-ethoxycyclohexyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

N-(3-(3,6-difluoropyridin-2-yl)-1-(4-ethoxycyclohexyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-177: N-(3-(3,6-difluoropyridin-2-yl)-1-((1s,4s)-4-ethoxycyclohexyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-178: N-(1-((1r,4r)-4-ethoxycyclohexyl)-3-(1,3,4-oxadiazol-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-179: N-(1-((1r,4r)-4-((2,2-difluoroethyl)amino)cyclohexyl)-3-(pyrimidin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

II-180: N-(3-(3,5-difluoropyridin-2-yl)-1-((1r,4r)-4-ethoxycyclohexyl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)thiazole-4-carboxamide;

III-1: 2-(1-(cyclopropylmethyl)-1H-pyrazol-4-yl)-N-(1-methyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)oxazole-4-carboxamide;

III-2: 2-(1*H*-pyrazol-4-yl)-*N*-(3-(pyridin-2-yl)-1-(tetrahydro-2*H*-pyran-4-yl)-1*H*-pyrazol-4-yl)oxazole-4-carboxamide;

III-3: N-(1-(2-ethoxyethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)oxazole-4-carboxamide;

III-4: N-(1-((1s,3s)-3-ethoxycyclobutyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)oxazole-4-carboxamide;

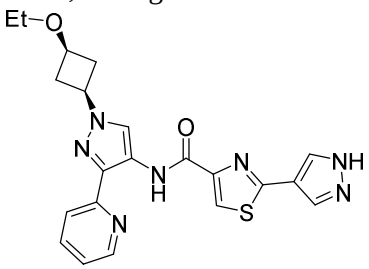
III-5: N-(1-cyclobutyl-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)oxazole-4-carboxamide;

III-6: N-(1-(2-(2-methoxyethoxy)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)oxazole-4-carboxamide;

2-(1H-pyrazol-3-yl)-N-(3-(pyridin-2-yl)-1-(2-(2,2,2-trifluoroethoxy)ethyl)-1H-pyrazol-4-yl)oxazole-4-carboxamide; and

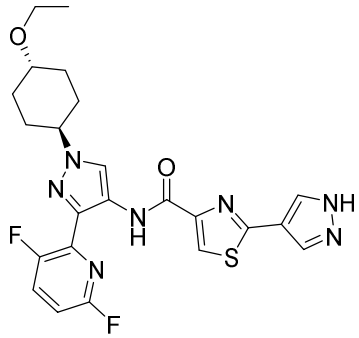
III-8: N-(1-(2-(2,2-difluoroethoxy)ethyl)-3-(pyridin-2-yl)-1H-pyrazol-4-yl)-2-(1H-pyrazol-4-yl)oxazole-4-carboxamide.

11. The compound of claim 1, having a structure



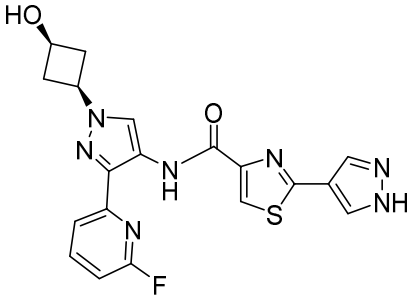
or a pharmaceutically acceptable salt thereof.

12. The compound of claim 1, having a structure



or a pharmaceutically acceptable salt thereof.

13. The compound of claim 1, having a structure



or a pharmaceutically acceptable salt thereof.

14. A composition, comprising a compound of any one of claims 1-13, and a pharmaceutically acceptable excipient.

15. A composition for use in treating a disease or condition in a subject, comprising a compound of any one of claims 1-13.

16. The composition for use according to claim 15, for use in treating a disease or condition for which an IRAK inhibitor is indicated, wherein the disease is an auto-immune disease, inflammatory disorder, cardiovascular disease, neurodegenerative disorder, allergic disorder, multi-organ failure, kidney disease, platelet aggregation, cancer, transplantation, sperm motility, erythrocyte deficiency, graft rejection, lung injury, respiratory disease, ischemic condition, bacterial infection, viral infection, immune regulatory disorder or a combination thereof, optionally the auto-immune disease is rheumatoid arthritis, systemic lupus erythematosus, Hashimoto's thyroiditis, multiple sclerosis, systemic sclerosis, myasthenia gravis, type I diabetes, uveitis, posterior uveitis, allergic encephalomyelitis, or glomerulonephritis;

optionally the disease is rheumatoid arthritis, psoriatic arthritis, osteoarthritis, systemic lupus erythematosus, lupus nephritis, ankylosing spondylitis, osteoporosis, systemic sclerosis, multiple sclerosis, psoriasis, in particular pustular psoriasis, type I diabetes, type II diabetes, inflammatory bowel disease, hyperimmunoglobulinemia d and 25 periodic fever syndrome, cryopyrin-associated periodic syndromes, Schnitzler's syndrome, systemic juvenile idiopathic arthritis, adult's onset Still's disease, gout, gout flares, pseudogout, sapho syndrome, Castleman's disease, sepsis, stroke, atherosclerosis, celiac disease, DIRA (deficiency of Il-1 receptor antagonist), Alzheimer's disease or Parkinson's disease.

17. Use of a compound according to any one of claims 1-13, or a composition according to claim 14, in the manufacture of a medicament for treating a disease or condition for which an IRAK inhibitor is indicated,

wherein the disease is an auto-immune disease, inflammatory disorder, cardiovascular disease, neurodegenerative disorder, allergic disorder, multi-organ failure, kidney disease, platelet aggregation, cancer, transplantation, sperm motility, erythrocyte deficiency, graft rejection, lung injury, respiratory disease, ischemic condition, bacterial infection, viral infection, immune regulatory disorder or a combination thereof, optionally the auto-immune disease is rheumatoid arthritis, systemic lupus erythematosus, Hashimoto's thyroiditis, multiple sclerosis, systemic sclerosis, myasthenia gravis, type I diabetes, uveitis, posterior uveitis, allergic encephalomyelitis, or glomerulonephritis;

optionally the disease is rheumatoid arthritis, psoriatic arthritis, osteoarthritis, systemic lupus erythematosus, lupus nephritis, ankylosing spondylitis, osteoporosis, systemic sclerosis, multiple sclerosis, psoriasis, in particular pustular psoriasis, type I diabetes, type II diabetes, inflammatory bowel disease, hyperimmunoglobulinemia d and 25 periodic fever syndrome, cryopyrin-associated periodic syndromes, Schnitzler's syndrome, systemic juvenile idiopathic arthritis, adult's onset Still's disease, gout, gout flares, pseudogout, sapho syndrome, Castleman's disease, sepsis, stroke, atherosclerosis, celiac disease, DIRA (deficiency of Il-1 receptor antagonist), Alzheimer's disease or Parkinson's disease.

18. A method, comprising contacting the IRAK protein with a compound of any one of claims 1-13 or a composition of claim 14 *in vitro*.

19. Use of the compound according to any one of claims 1-13 in the manufacturing of a medicament for treating a proliferative disease.

20. The use according to claim 19, wherein the proliferative disease is selected from benign or malignant tumors, solid tumor, carcinoma of the brain, kidney, liver, adrenal gland, bladder, breast, stomach, gastric tumors, ovaries, colon, rectum, prostate, pancreas, lung, vagina, cervix, testis, genitourinary tract, esophagus, larynx, skin, bone or thyroid, sarcoma, glioblastomas, neuroblastomas, multiple myeloma, gastrointestinal cancer, colon carcinoma, colorectal adenoma, a tumor of the neck and head, an epidermal hyperproliferation, psoriasis, prostate hyperplasia, a neoplasia, a neoplasia of epithelial character, adenoma, adenocarcinoma, keratoacanthoma, epidermoid carcinoma, large cell carcinoma, non-small-cell lung carcinoma, lymphomas, Hodgkins and Non-Hodgkins, a mammary carcinoma, follicular carcinoma, undifferentiated carcinoma, papillary carcinoma, seminoma, melanoma, IL-1 driven disorders, a MyD88 driven disorder, ABC diffuse large B-cell lymphoma (DLBCL), Waldenström's macroglobulinemia, Hodgkin's lymphoma, primary cutaneous T-cell lymphoma, chronic lymphocytic leukemia, smoldering and indolent multiple myeloma.

21. The use according to claim 19, wherein the proliferative disease is a hematological malignancy.

22. The use according to claim 21, wherein the hematological malignancy is selected from leukemia, acute myeloid leukemia (AML), DLBCL, ABC DLBCL, chronic lymphocytic leukemia (CLL), chronic lymphocytic lymphoma, primary effusion lymphoma, Burkitt lymphoma/leukemia, acute lymphocytic leukemia, B-cell prolymphocytic leukemia, lymphoplasmacytic lymphoma, myelodysplastic syndromes (MDS), myelofibrosis, polycythemia vera, Kaposi’s sarcoma,

Waldenström's macroglobulinemia (WM), splenic marginal zone lymphoma, multiple myeloma, plasmacytoma, and intravascular large B-cell lymphoma.

23. The use according to claim 21, wherein the hematological malignancy is a myelodysplastic syndrome.

24. The use according to claim 19, wherein the proliferative disease is a hyperproliferative skin disease.

25. The use according to claim 24, wherein the hyperproliferative skin disease is selected from psoriasis, atopic dermatitis, contact dermatitis, eczematous dermatitis, seborrhoeic dermatitis, lichen planus, pemphigus, bullous pemphigoid, epidermolysis bullosa, urticaria, angioedemas, vasculitis, erythema, cutaneous eosinophilia, lupus erythematosus, acne, and alopecia areata.

26. The use according to claim 25, wherein the psoriasis is pustular psoriasis.