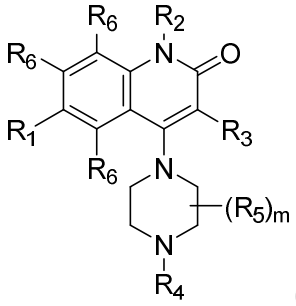
CLAIMS

What is claimed is:

1. A compound of Formula (I):



(I)

or a salt thereof, wherein:

R_1 is ~~H,~~ F, Cl, Br, –CN, $C_{1–3}$ alkyl substituted with zero to 4 R_{1a}, $C_{3–4}$ cycloalkyl substituted with zero to 4 R_{1a}, $C_{1–3}$ alkoxy substituted with zero to 4 R_{1a}, $–C(O)NR_aR_a$, $–NR_aR_a$, $–S(O)_nR_e$, or $–P(O)R_eR_e$;

each R_{1a} is independently F, Cl, –CN, –OH, $–OCH_3$, or $–NR_aR_a$;

each R_a is independently H or $C_{1–3}$ alkyl;

each R_e is independently $C_{3–4}$ cycloalkyl or $C_{1–3}$ alkyl substituted with zero to 4 R_{1a};

R_2 is H, $C_{1–3}$ alkyl substituted with zero to 4 R_{2a}, $C_{2–3}$ alkenyl substituted with zero to 4 R_{2a}, or $C_{3–4}$ cycloalkyl substituted with zero to 4 R_{2a};

each R_{2a} is independently F, Cl, –CN, –OH, $–O(C_{1–2}$ alkyl), $C_{3–4}$ cycloalkyl, $C_{3–4}$ alkenyl, or $C_{3–4}$ alkynyl;

R_3 is H, F, Cl, Br, –CN, $C_{1–3}$ alkyl, $C_{1–2}$ fluoroalkyl, $C_{3–4}$ cycloalkyl, $C_{3–4}$ fluorocycloalkyl, $–NO_2$, or pyridinyl substituted with zero to 2 R_{3a};

each R_{3a} is halo, –CN, C_{1-3} alkyl, or C_{1-3} alkoxy;

R_4 is $–CH_2R_{4a}$, $–CH_2CH_2R_{4a}$, $–CH_2CHR_{4a}R_{4d}$, $–CHR_{4a}R_{4b}$, or $–CR_{4a}R_{4b}R_{4c}$;

R_{4a} and R_{4b} are independently:

(i) $C_{1–6}$ alkyl substituted with zero to 4 substituents independently selected from F, Cl, –CN, –OH, $–OCH_3$, $–SCH_3$, $C_{1–3}$ fluoroalkoxy, $–NR_aR_a$, $–S(O)_2R_e$, or $–NR_aS(O)_2R_e$;

(ii) $C_{3–6}$ cycloalkyl, heterocyclyl, phenyl, or heteroaryl, each substituted with zero to 4

substituents independently selected from F, Cl, Br, −CN, −OH, $C_{1–6}$ alkyl, $C_{1–3}$ fluoroalkyl, $C_{1–4}$ hydroxyalkyl, $-(CH_2)_{1–2}O(C_{1–3}$ alkyl), $C_{1–4}$ alkoxy, $-O(C_{1–4}$ hydroxyalkyl), $-O(CH)_{1–3}O(C_{1–3}$ alkyl), $C_{1–3}$ fluoroalkoxy, $-O(CH)_{1–3}NR_cR_c$, $-OCH_2CH=CH_2$, $-OCH_2C\equiv CH$, $-C(O)(C_{1–4}$ alkyl), −C(O)OH, $-C(O)O(C_{1–4}$ alkyl), $-NR_cR_c$, $-NR_aS(O)_2(C_{1–3}$ alkyl), $-NR_aC(O)(C_{1–3}$ alkyl), $-NR_aC(O)O(C_{1–4}$ alkyl), $-P(O)(C_{1–3}$ alkyl)$_2$, $-S(O)_2(C_{1–3}$ alkyl), $-O(CH_2)_{1–2}(C_{3–6}$ cycloalkyl), $-O(CH_2)_{1–2}$(morpholinyl), cyclopropyl, cyanocyclopropyl, methylazetidinyl, acetylazetidinyl, (*tert*-butoxycarbonyl)azetidinyl, triazolyl, tetrahydropyranyl, morpholinyl, thiophenyl, methylpiperidinyl, and R_d; or

(iii) $C_{1–4}$ alkyl substituted with one cyclic group selected from $C_{3–6}$ cycloalkyl, heterocyclyl, aryl, and heteroaryl, said cyclic group substituted with zero to 3 substituents independently selected from F, Cl, Br, −OH, −CN, $C_{1–6}$ alkyl, $C_{1–3}$ fluoroalkyl, $C_{1–3}$ alkoxy, $C_{1–3}$ fluoroalkoxy, $-OCH_2CH=CH_2$, $-OCH_2C\equiv CH$, $-NR_cR_c$, $-NR_aS(O)_2(C_{1–3}$ alkyl), $-NR_aC(O)(C_{1–3}$ alkyl), $-NR_aC(O)O(C_{1–4}$ alkyl), and $C_{3–6}$ cycloalkyl;

or R_{4a} and R_{4b} together with the carbon atom to which they are attached form a $C_{3–6}$ cycloalkyl or a 3- to 6-membered heterocyclyl, each substituted with zero to 3 R_f;

each R_f is independently F, Cl, Br, −OH, −CN, $C_{1–6}$ alkyl, $C_{1–3}$ fluoroalkyl, $C_{1–3}$ alkoxy, $C_{1–3}$ fluoroalkoxy, $-OCH_2CH=CH_2$, $-OCH_2C\equiv CH$, $-NR_cR_c$, or a cyclic group selected from $C_{3–6}$ cycloalkyl, 3- to 6-membered heterocyclyl, phenyl, monocyclic heteroaryl, and bicyclic heteroaryl, each cyclic group substituted with zero to 3 substituents independently selected from F, Cl, Br, −OH, −CN, $C_{1–6}$ alkyl, $C_{1–3}$ fluoroalkyl, $C_{1–3}$ alkoxy, $C_{1–3}$ fluoroalkoxy, and $-NR_cR_c$;

R_{4c} is $C_{1–6}$ alkyl or $C_{3–6}$ cycloalkyl, each substituted with zero to 4 substituents independently selected from F, Cl, −OH, $C_{1–2}$ alkoxy, $C_{1–2}$ fluoroalkoxy, and −CN;

R_{4d} is $-OCH_3$;

each R_c is independently H or $C_{1–2}$ alkyl;

R_d is phenyl substituted with zero to 1 substituent selected from F, Cl, −CN, $-CH_3$, and $-OCH_3$;

each R_5 is independently F, Cl, −CN, −OH, $C_{1–6}$ alkyl substituted with zero to 4 R_g, $C_{1–3}$

alkoxy substituted with zero to 4 R_g, $C_{2–4}$ alkenyl substituted with zero to 4 R_g, $C_{2–4}$ alkynyl substituted with zero to 4 R_g, $C_{3–4}$ cycloalkyl substituted with zero to 4 R_g, phenyl substituted with zero to 4 R_g, oxadiazolyl substituted with zero to 3 R_g, pyridinyl substituted with zero to 4 R_g, $-(CH_2)_{1–2}$(heterocyclyl substituted with zero to 4 R_g), $-(CH_2)_{1–2}NR_cC(O)(C_{1–4}$ alkyl), $-(CH_2)_{1–2}NR_cC(O)O(C_{1–4}$ alkyl), $-(CH_2)_{1–2}NR_cS(O)_2(C_{1–4}$ alkyl), $-C(O)(C_{1–4}$ alkyl), $-C(O)OH$, $-C(O)O(C_{1–4}$ alkyl), $-C(O)O(C_{3–4}$ cycloalkyl), $-C(O)NR_aR_a$, or $-C(O)NR_a(C_{3–4}$ cycloalkyl), or two R_5 attached to the same carbon atom form =O;

each R_g is independently F, Cl, $-CN$, $-OH$, $C_{1–3}$ alkoxy, $C_{1–3}$ fluoroalkoxy, $-O(CH_2)_{1–2}O(C_{1–2}$ alkyl), C_{3-5} cycloalkyl, or $-NR_cR_c$;

each R_6 is H, F, Cl, $-CN$, $-CH_3$, $-CH_2F$, $-CHF_2$, $-CF_3$, or $-OCH_3$;

m is zero, 1, 2, or 3; and

n is zero, 1, or 2.

2. The compound according to Claim 1 or a salt thereof, wherein:

R_1 is ~~H,~~ F, Cl, Br, $-CN$, $C_{1–3}$ alkyl substituted with zero to 4 R_{1a}, cyclopropyl substituted with zero to 3 R_{1a}, $C_{1–3}$ alkoxy substituted with zero to 3 R_{1a}, $-C(O)NR_aR_a$, $-NR_aR_a$, $-S(O)_nCH_3$, or $-P(O)(CH_3)_2$;

each R_{1a} is independently F, Cl, or $-CN$;

each R_a is independently H or $C_{1–3}$ alkyl;

R_2 is H, $C_{1–2}$ alkyl substituted with zero to 2 R_{2a}, or $C_{2–3}$ alkenyl substituted with zero to 2 R_{2a};

each R_{2a} is independently F, Cl, $-CN$, $-OH$, $-O(C_{1–2}$ alkyl), cyclopropyl, $C_{3–4}$ alkenyl, or $C_{3–4}$ alkynyl;

R_3 is H, F, Cl, Br, $-CN$, $C_{1–2}$ alkyl, $C_{1–2}$ fluoroalkyl, $C_{3–4}$ cycloalkyl, $-NO_2$, or pyridinyl substituted with zero to 2 R_{3a};

R_{4a} and R_{4b} are independently:

(i) $C_{1–4}$ alkyl substituted with zero to 4 substituents independently selected from F, Cl, $-CN$, $-OH$, $-OCH_3$, $-SCH_3$, $C_{1–3}$ fluoroalkoxy, and $-NR_aR_a$;

(ii) $C_{3–6}$ cycloalkyl, heterocyclyl, phenyl, or heteroaryl, each substituted with zero to 4

substituents independently selected from F, Cl, Br, −CN, −OH, $C_{1–6}$ alkyl, $C_{1–3}$ fluoroalkyl, $-CH_2OH$, $-(CH_2)_{1–2}O(C_{1–2}$ alkyl), $C_{1–4}$ alkoxy, $-O(C_{1–4}$ hydroxyalkyl), $-O(CH)_{1–2}O(C_{1–2}$ alkyl), $C_{1–3}$ fluoroalkoxy, $-O(CH)_{1–2}NR_cR_c$, $-OCH_2CH=CH_2$, $-OCH_2C\equiv CH$, $-C(O)(C_{1–4}$ alkyl), −C(O)OH, $-C(O)O(C_{1–4}$ alkyl), $-NR_cR_c$, $-NR_aS(O)_2(C_{1–3}$ alkyl), $-NR_aC(O)(C_{1–3}$ alkyl), $-NR_aC(O)O(C_{1–4}$ alkyl), $-P(O)(C_{1–2}$ alkyl)$_2$, $-S(O)_2(C_{1–3}$ alkyl), $-O(CH_2)_{1–2}(C_{3–4}$ cycloalkyl), $-O(CH_2)_{1–2}$(morpholinyl), cyclopropyl, cyanocyclopropyl, methylazetidinyl, acetylazetidinyl, (*tert*-butoxycarbonyl)azetidinyl, triazolyl, tetrahydropyranyl, morpholinyl, thiophenyl, methylpiperidinyl, and R_d; or

(iii) $C_{1–3}$ alkyl substituted with one cyclic group selected from $C_{3–6}$ cycloalkyl, heterocyclyl, phenyl, and heteroaryl, said cyclic group substituted with zero to 3 substituents independently selected from F, Cl, Br, −OH, −CN, $C_{1–3}$ alkyl, $C_{1–2}$ fluoroalkyl, $C_{1–3}$ alkoxy, $C_{1–2}$ fluoroalkoxy, $-OCH_2CH=CH_2$, $-OCH_2C\equiv CH$, $-NR_cR_c$, $-NR_aS(O)_2(C_{1–3}$ alkyl), $-NR_aC(O)(C_{1–3}$ alkyl), $-NR_aC(O)O(C_{1–4}$ alkyl), and $C_{3–4}$ cycloalkyl;

or R_{4a} and R_{4b} together with the carbon atom to which they are attached, form a $C_{3–6}$ cycloalkyl or a 3- to 6-membered heterocyclyl, each substituted with zero to 3 R_f;

each R_f is independently F, Cl, Br, −OH, −CN, $C_{1–4}$ alkyl, $C_{1–2}$ fluoroalkyl, $C_{1–3}$ alkoxy, $C_{1–2}$ fluoroalkoxy, $-OCH_2CH=CH_2$, $-OCH_2C\equiv CH$, $-NR_cR_c$, or a cyclic group selected from $C_{3–6}$ cycloalkyl, 3- to 6-membered heterocyclyl, phenyl, monocyclic heteroaryl, and bicyclic heteroaryl, each cyclic group substituted with zero to 3 substituents independently selected from F, Cl, Br, −OH, −CN, $C_{1–4}$ alkyl, $C_{1–2}$ fluoroalkyl, $C_{1–3}$ alkoxy, $C_{1–2}$ fluoroalkoxy, and $-NR_cR_c$;

R_{4c} is $C_{1–4}$ alkyl or $C_{3–6}$ cycloalkyl, each substituted with zero to 4 substituents independently selected from F, Cl, −OH, $C_{1–2}$ alkoxy, $C_{1–2}$ fluoroalkoxy, and −CN;

each R_5 is independently F, −CN, −OH, $C_{1–5}$ alkyl substituted with zero to 4 R_g, $C_{1–2}$ alkoxy substituted with zero to 3 R_g, $C_{2–3}$ alkenyl substituted with zero to 4 R_g, $C_{2–3}$ alkynyl substituted with zero to 4 R_g, $C_{3–4}$ cycloalkyl substituted with zero to 4 R_g, phenyl substituted with zero to 3 R_g, oxadiazolyl substituted with zero to 3 R_g, pyridinyl substituted with zero to 3 R_g, $-(CH_2)_{1–2}$(heterocyclyl substituted with zero

to 4 R_g), $-(CH_2)_{1-2}NR_cC(O)(C_{1-4}$ alkyl), $-(CH_2)_{1-2}NR_cC(O)O(C_{1-4}$ alkyl), $-(CH_2)_{1-2}NR_cS(O)_2(C_{1-4}$ alkyl), $-C(O)(C_{1-4}$ alkyl), $-C(O)OH$, $-C(O)O(C_{1-4}$ alkyl), $-C(O)O(C_{3-4}$ cycloalkyl), $-C(O)NR_aR_a$, or $-C(O)NR_a(C_{3-4}$ cycloalkyl), or two R_5 attached to the same carbon atom form =O;

each R_6 is H, F, or $-CH_3$; and

m is zero, 1, 2, or 3.

3. The compound according to claim 1 or a salt thereof, wherein:

R_1 is ~~H,~~ F, –CN, or $-OCH_3$;

R_2 is H, $-CH_3$, $-CH_2CN$, $-CH_2CH_2F$, or $-CH_2CH=CH_2$;

R_3 is H, –CN, $-CH_2OH$, $-C(O)OCH_2CH_3$, $-NO_2$, or pyridinyl;

R_4 is $-CH_2R_{4a}$ or $-CHR_{4a}R_{4b}$;

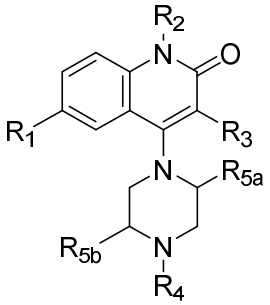
R_{4a} is phenyl, naphthalenyl, or indolyl, each substituted with zero to 2 substituents independently selected from F, $-CH_3$, $-CH_2CH_3$, and $-OCH_3$;

R_{4b} is phenyl or fluorophenyl;

each R_5 is $-CH_3$, or two R_5 attached to the same carbon atom form =O; and

m is zero, 1, or 2.

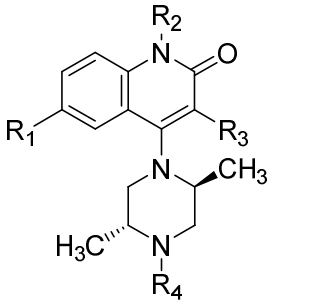
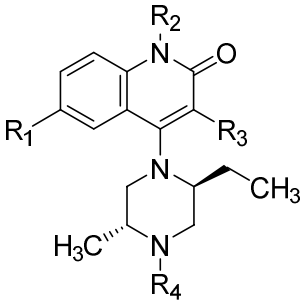
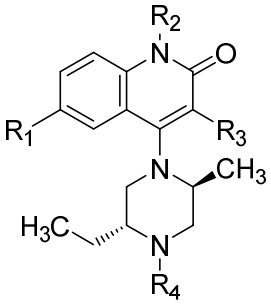
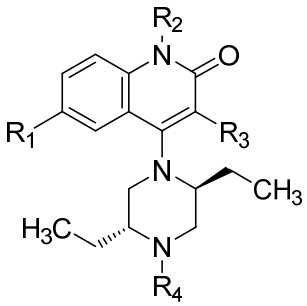
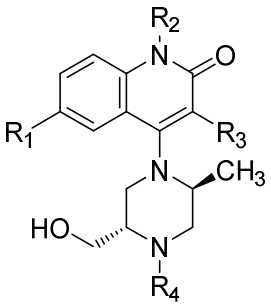
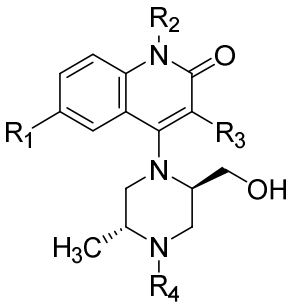
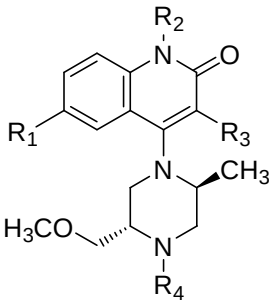
4. The compound according to claim 1 or a salt thereof, having the structure:



wherein:

R_{5a} and R_{5b} are independently selected from R_5.

5. The compound according to claim 1 or a salt thereof, having the structure:

or .

6. The compound according to claim 1 or a salt thereof, wherein R_4 is $-CH_2R_{4a}$ or $-CH_2CH_2R_{4a}$.

7. The compound according to claim 1 or a salt thereof, wherein R_4 is $-CH_2R_{4a}$.

8. The compound according to claim 1 or a salt thereof, wherein R_4 is $-CHR_{4a}R_{4b}$ or $-CR_{4a}R_{4b}R_{4c}$.

9. The compound according to claim 1 or a salt thereof, wherein R_4 is $-CHR_{4a}R_{4b}$.

10. The compound according to claim 1 or a salt thereof, wherein R_4 is $-CH_2R_{4a}$ or $-CHR_{4a}R_{4b}$.

11. The compound according to claim 1 or a salt thereof, wherein said compound is:

6-fluoro-4-{4-[(3-fluorophenyl)methyl]piperazin-1-yl}-1-methyl-3-nitro-1,2-dihydroquinolin-2-one (1);

6-fluoro-4-{4-[(3-fluoro-5-methylphenyl)methyl]piperazin-1-yl}-1-methyl-3-(pyridin-4-yl)-1,2-dihydroquinolin-2-one (2);

4-(4-((1H-indol-4-yl)methyl)piperazin-1-yl)-6-fluoro-1-methyl-3-nitroquinolin-2(1H)-one (3);

4-{4-[(1-ethyl-1H-indol-4-yl)methyl]piperazin-1-yl}-6-fluoro-1-methyl-3-nitro-1,2-dihydroquinolin-2-one (4);

4-(4-benzyl-3-oxopiperazin-1-yl)-6-fluoro-1-methyl-3-nitro-1,2-dihydroquinolin-2-one (5);

4-[(2S,5R)-4-[bis(4-fluorophenyl)methyl]-2,5-dimethylpiperazin-1-yl]-1-methyl-2-oxo-1,2-dihydroquinoline-3-carbonitrile (6);

4-[(2S,5R)-4-[bis(4-fluorophenyl)methyl]-2,5-dimethylpiperazin-1-yl]-1-methyl-2-oxo-1,2-dihydroquinoline-6-carbonitrile (7);

6-methoxy-1-methyl-4-{4-[(naphthalen-1-yl)methyl]piperazin-1-yl}-3-nitro-1,2-dihydroquinolin-2-one (8)~~;~~

~~4-(4-benzhydrylpiperazin-1-yl)-1-methylquinolin-2(1H)-one (9);~~

~~4-[4-(diphenylmethyl)piperazin-1-yl]-3-(hydroxymethyl)-1-methyl-1,2-dihydroquinolin-2-one (11);~~

~~Ethyl 4-{4-[(2-methoxynaphthalen-1-yl)methyl]piperazin-1-yl}-1-methyl-2-oxo-1,2-dihydroquinoline-3-carboxylate (12);~~

~~4-(4-(bis(4-fluorophenyl)methyl)piperazin-1-yl)-3-nitroquinolin-2(1H)-one (13);~~

~~4-{4-[bis(4-fluorophenyl)methyl]piperazin-1-yl}-1-(2-fluoroethyl)-3-nitro-1,2-dihydroquinolin-2-one (14);~~

~~2-(4-{4-[bis(4-fluorophenyl)methyl]piperazin-1-yl}-3-nitro-2-oxo-1,2-dihydroquinolin-1-yl)acetonitrile (15); or~~

~~4-{4-[bis(4-fluorophenyl)methyl]piperazin-1-yl}-3-nitro-1-(prop-2-en-1-yl)-1,2-dihydroquinolin-2-one (16)~~.

12. A pharmaceutical composition comprising a compound according to claim 1 or a pharmaceutically-acceptable salt thereof; and a pharmaceutically acceptable carrier.

13. ~~Use of a~~ A compound according to any one of claims 1-11 or a pharmaceutically-acceptable salt thereof~~,~~ for use in the treatment of cancer or viral infections.

14. Use of a compound according to any one of claims 1-11 or a pharmaceutically-acceptable salt thereof in the manufacture of a medicament for the treatment of cancer or viral infections.

15~~14~~. The compound for use of claim 13 or the use of claim 14~~13~~, wherein said cancer is selected from cancer of the colon, pancreatic cancer, breast cancer, prostate cancer, lung cancer, ovarian cancer, cervical cancer, renal cancer, cancer of the head and neck, lymphoma, leukemia and melanoma.

16~~15~~. ~~Use of a~~ A compound according to any one of claims 1-11 or a pharmaceutically-acceptable salt thereof~~,~~ for use in inhibiting activity of at least one of diacylglycerol kinase selected from diacylglycerol kinase alpha (DGKα) and diacylglycerol kinase zeta (DGKζ).