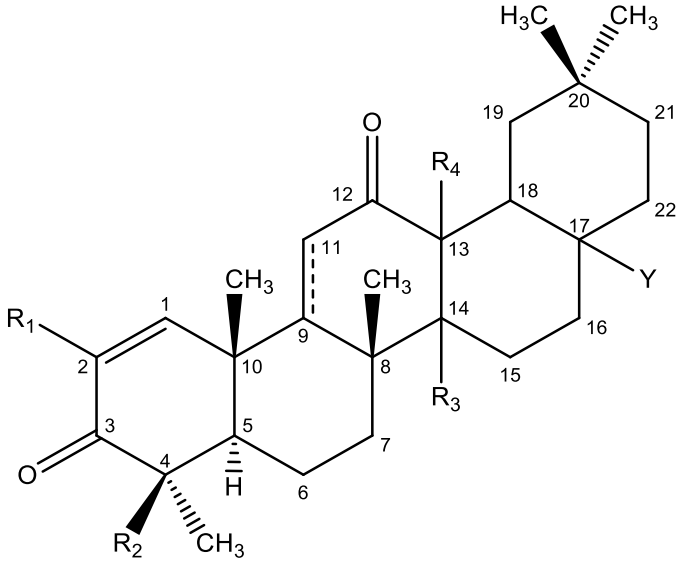
CLAIMS

1. ~~A method of treating a patient infected with SARS-CoV-2, comprising administering to the patient a therapeutically effective amount~~Use of a compound of the formula:



(I),

wherein:

R_1 is −CN, halo, $-CF_3$, or $-C(O)R_a$, wherein R_a is −OH, $alkoxy_{(C1-4)}$, $-NH_2$, $alkylamino_{(C1-4)}$, or $-NH-S(O)_2-alkyl_{(C1-4)}$;

R_2 is hydrogen or methyl;

R_3 and R_4 are each independently hydrogen, hydroxy, methyl or as defined below when either of these groups is taken together with group R_c; and

Y is:

−H, −OH, −SH, −CN, −F, $-CF_3$, $-NH_2$ or −NCO;

$alkyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq12)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $aryloxy_{(C\leq12)}$, $acyloxy_{(C\leq8)}$, $alkylamino_{(C\leq8)}$, $cycloalkylamino_{(C\leq8)}$, $dialkylamino_{(C\leq8)}$, $arylamino_{(C\leq8)}$, $aralkylamino_{(C\leq8)}$, $alkylthio_{(C\leq8)}$, $acylthio_{(C\leq8)}$, $alkylsulfonylamino_{(C\leq8)}$, $cycloalkylsulfonylamino_{(C\leq8)}$, or substituted versions of any of these groups;

$-alkanediyl_{(C\leq8)}-R_b$, $-alkenediyl_{(C\leq8)}-R_b$, or a substituted version of any of these groups, wherein R_b is:

hydrogen, hydroxy, halo, amino or mercapto; or

heteroaryl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, aralkylamino$_{(C\leq 8)}$, heteroarylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −OC(O)NH−alkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

$-(CH_2)_mC(O)R_c$, wherein m is 0–6 and R_c is:

hydrogen, hydroxy, halo, amino, −NHOH, or mercapto; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −NH−alkoxy$_{(C\leq 8)}$, −NH–heterocycloalkyl$_{(C\leq 8)}$, −NH–amido$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_c and R_3, taken together, are −O− or $-NR_d-$, wherein R_d is hydrogen or alkyl$_{(C\leq 4)}$; or

R_c and R_4, taken together, are −O− or $-NR_d-$, wherein R_d is hydrogen or alkyl$_{(C\leq 4)}$; or

$-NHC(O)R_e$, wherein R_e is:

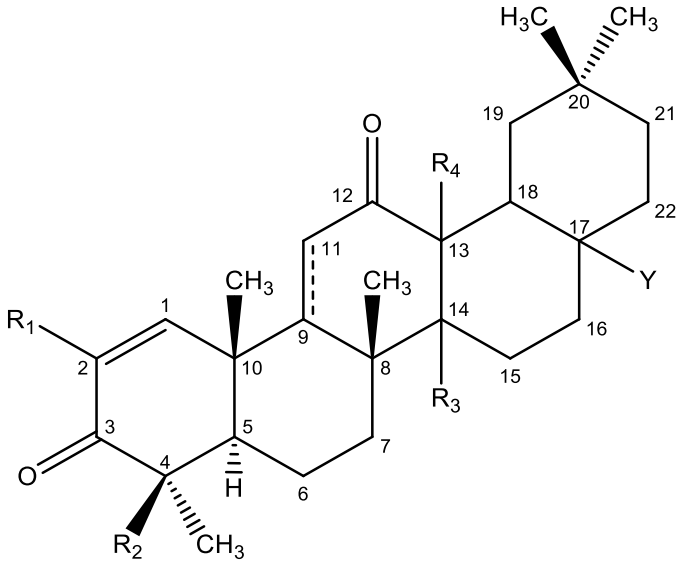
hydrogen, hydroxy, amino; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a patient infected with SARS-CoV-2, wherein the medicament comprises a pharmaceutically effective amount of the compound.

2. The ~~method~~ use of claim 1, wherein the patient has been identified as not having a history of left-sided heart failure or wherein the patient does not show evidence of left ventricular dysfunction.

3. ~~A method of treating a patient infected with a coronavirus, comprising administering to the patient a therapeutically effective amount~~Use of a compound of the formula:



(I),

wherein:

R_1 is −CN, halo, $-CF_3$, or $-C(O)R_a$, wherein R_a is −OH, $alkoxy_{(C1-4)}$, $-NH_2$, $alkylamino_{(C1-4)}$, or $-NH-S(O)_2-alkyl_{(C1-4)}$;

R_2 is hydrogen or methyl;

R_3 and R_4 are each independently hydrogen, hydroxy, methyl or as defined below when either of these groups is taken together with group R_c; and

Y is:

−H, −OH, −SH, −CN, −F, $-CF_3$, $-NH_2$ or −NCO;

$alkyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq12)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $aryloxy_{(C\leq12)}$, $acyloxy_{(C\leq8)}$, $alkylamino_{(C\leq8)}$, $cycloalkylamino_{(C\leq8)}$, $dialkylamino_{(C\leq8)}$, $arylamino_{(C\leq8)}$, $aralkylamino_{(C\leq8)}$, $alkylthio_{(C\leq8)}$, $acylthio_{(C\leq8)}$,

alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, or substituted versions of any of these groups;

−alkanediyl$_{(C\leq 8)}$−R_b, −alkenediyl$_{(C\leq 8)}$−R_b, or a substituted version of any of these groups, wherein R_b is:

hydrogen, hydroxy, halo, amino or mercapto; or

heteroaryl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, aralkylamino$_{(C\leq 8)}$, heteroarylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −OC(O)NH−alkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

$-(CH_2)_mC(O)R_c$, wherein m is 0–6 and R_c is:

hydrogen, hydroxy, halo, amino, −NHOH, or mercapto; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −NH−alkoxy$_{(C\leq 8)}$, −NH–heterocycloalkyl$_{(C\leq 8)}$, −NH–amido$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_c and R_3, taken together, are −O− or −NR_d−, wherein R_d is hydrogen or alkyl$_{(C\leq 4)}$; or

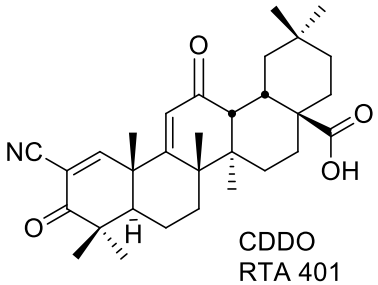
R_c and R_4, taken together, are −O− or −NR_d−, wherein R_d is hydrogen or alkyl$_{(C\leq 4)}$; or

−NHC(O)R_e, wherein R_e is:

hydrogen, hydroxy, amino; or

alkyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, aryl$_{(C\leq8)}$, aralkyl$_{(C\leq8)}$, heteroaryl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, alkoxy$_{(C\leq8)}$, cycloalkoxy$_{(C\leq8)}$, aryloxy$_{(C\leq8)}$, aralkoxy$_{(C\leq8)}$, heteroaryloxy$_{(C\leq8)}$, acyloxy$_{(C\leq8)}$, alkylamino$_{(C\leq8)}$, cycloalkylamino$_{(C\leq8)}$, dialkylamino$_{(C\leq8)}$, arylamino$_{(C\leq8)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a patient infected with SARS-CoV-2, wherein the medicament comprises a pharmaceutically effective amount of the compound, and

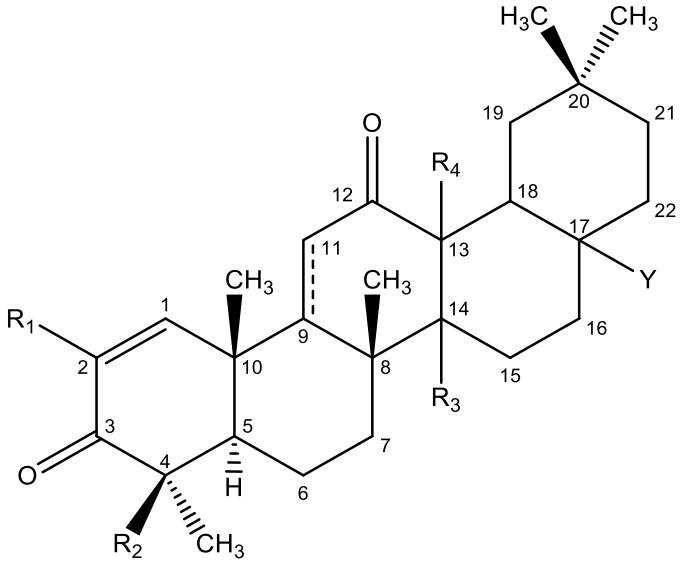


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wherein the compound is not .

4. The ~~method~~ use of claim 3, wherein the patient has been identified as not having a history of left-sided heart failure or wherein the patient does not show evidence of left ventricular dysfunction.

5. ~~A method of treating a patient infected with a coronavirus, comprising administering to the patient a therapeutically effective amount~~Use of a compound of the formula:



(I),

wherein:

R_1 is −CN, halo, $-CF_3$, or $-C(O)R_a$, wherein R_a is −OH, $alkoxy_{(C1-4)}$, $-NH_2$, $alkylamino_{(C1-4)}$, or $-NH-S(O)_2-alkyl_{(C1-4)}$;

R_2 is hydrogen or methyl;

R_3 and R_4 are each independently hydrogen, hydroxy, methyl or as defined below when either of these groups is taken together with group R_c; and

Y is:

−H, −OH, −SH, −CN, −F, $-CF_3$, $-NH_2$ or −NCO;

$alkyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq12)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $aryloxy_{(C\leq12)}$, $acyloxy_{(C\leq8)}$, $alkylamino_{(C\leq8)}$, $cycloalkylamino_{(C\leq8)}$, $dialkylamino_{(C\leq8)}$, $arylamino_{(C\leq8)}$, $aralkylamino_{(C\leq8)}$, $alkylthio_{(C\leq8)}$, $acylthio_{(C\leq8)}$, $alkylsulfonylamino_{(C\leq8)}$, $cycloalkylsulfonylamino_{(C\leq8)}$, or substituted versions of any of these groups;

$-alkanediyl_{(C\leq8)}-R_b$, $-alkenediyl_{(C\leq8)}-R_b$, or a substituted version of any of these groups, wherein R_b is:

hydrogen, hydroxy, halo, amino or mercapto; or

$heteroaryl_{(C\leq8)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $alkenyloxy_{(C\leq8)}$, $aryloxy_{(C\leq8)}$, $aralkoxy_{(C\leq8)}$, $heteroaryloxy_{(C\leq8)}$, $acyloxy_{(C\leq8)}$, $alkylamino_{(C\leq8)}$, $cycloalkylamino_{(C\leq8)}$, $dialkylamino_{(C\leq8)}$, $arylamino_{(C\leq8)}$, $aralkylamino_{(C\leq8)}$, $heteroarylamino_{(C\leq8)}$, $alkylsulfonylamino_{(C\leq8)}$, $cycloalkylsulfonylamino_{(C\leq8)}$, $amido_{(C\leq8)}$, $-OC(O)NH-alkyl_{(C\leq8)}$, or a substituted version of any of these groups;

$-(CH_2)_mC(O)R_c$, wherein m is 0–6 and R_c is:

hydrogen, hydroxy, halo, amino, −NHOH, or mercapto; or

$alkyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $aryl_{(C\leq8)}$, $aralkyl_{(C\leq8)}$, $heteroaryl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $alkenyloxy_{(C\leq8)}$, $aryloxy_{(C\leq8)}$, $aralkoxy_{(C\leq8)}$, $heteroaryloxy_{(C\leq8)}$,

acyloxy$_{(C\leq8)}$, alkylamino$_{(C\leq8)}$, cycloalkylamino$_{(C\leq8)}$, dialkylamino$_{(C\leq8)}$, arylamino$_{(C\leq8)}$, alkylsulfonylamino$_{(C\leq8)}$, cycloalkylsulfonylamino$_{(C\leq8)}$, amido$_{(C\leq8)}$, −NH−alkoxy$_{(C\leq8)}$, −NH–heterocycloalkyl$_{(C\leq8)}$, −NH–amido$_{(C\leq8)}$, or a substituted version of any of these groups;

R_c and R_3, taken together, are −O− or −NR_d−, wherein R_d is hydrogen or alkyl$_{(C\leq4)}$; or

R_c and R_4, taken together, are −O− or −NR_d−, wherein R_d is hydrogen or alkyl$_{(C\leq4)}$; or

−NHC(O)R_e, wherein R_e is:

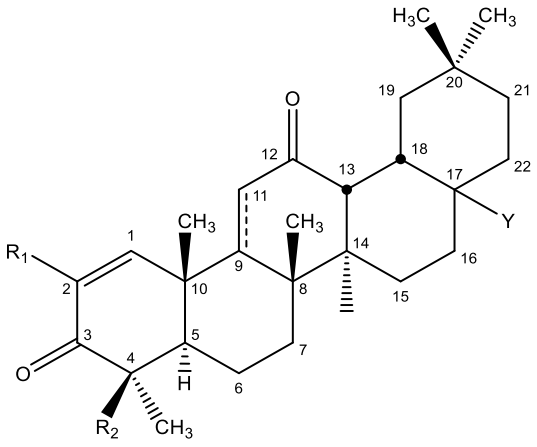
hydrogen, hydroxy, amino; or

alkyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, aryl$_{(C\leq8)}$, aralkyl$_{(C\leq8)}$, heteroaryl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, alkoxy$_{(C\leq8)}$, cycloalkoxy$_{(C\leq8)}$, aryloxy$_{(C\leq8)}$, aralkoxy$_{(C\leq8)}$, heteroaryloxy$_{(C\leq8)}$, acyloxy$_{(C\leq8)}$, alkylamino$_{(C\leq8)}$, cycloalkylamino$_{(C\leq8)}$, dialkylamino$_{(C\leq8)}$, arylamino$_{(C\leq8)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a patient infected with SARS-CoV-2, wherein the medicament comprises a pharmaceutically effective amount of the compound, and

wherein the patient has been identified as not having a history of left-sided heart failure or wherein the patient does not show evidence of left ventricular dysfunction.

6. The ~~method~~ use of any one of claims 1-5, wherein the compound is further defined as:



(II),

wherein:

R_1 is −CN, halo, $-CF_3$, or $-C(O)R_a$, wherein R_a is −OH, $alkoxy_{(C1-4)}$, $-NH_2$, $alkylamino_{(C1-4)}$, or $-NH-S(O)_2-alkyl_{(C1-4)}$;

R_2 is hydrogen or methyl;

Y is:

−H, −OH, −SH, −CN, −F, $-CF_3$, $-NH_2$ or −NCO;

$alkyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq12)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $aryloxy_{(C\leq12)}$, $acyloxy_{(C\leq8)}$, $alkylamino_{(C\leq8)}$, $cycloalkylamino_{(C\leq8)}$, $dialkylamino_{(C\leq8)}$, $arylamino_{(C\leq8)}$, $aralkylamino_{(C\leq8)}$, $alkylthio_{(C\leq8)}$, $acylthio_{(C\leq8)}$, $alkylsulfonylamino_{(C\leq8)}$, $cycloalkylsulfonylamino_{(C\leq8)}$, or substituted versions of any of these groups;

$-alkanediyl_{(C\leq8)}-R_b$, $-alkenediyl_{(C\leq8)}-R_b$, or a substituted version of any of these groups, wherein R_b is:

hydrogen, hydroxy, halo, amino or mercapto; or

$heteroaryl_{(C\leq8)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $alkenyloxy_{(C\leq8)}$, $aryloxy_{(C\leq8)}$, $aralkoxy_{(C\leq8)}$, $heteroaryloxy_{(C\leq8)}$, $acyloxy_{(C\leq8)}$, $alkylamino_{(C\leq8)}$, $cycloalkylamino_{(C\leq8)}$, $dialkylamino_{(C\leq8)}$, $arylamino_{(C\leq8)}$, $aralkylamino_{(C\leq8)}$, $heteroarylamino_{(C\leq8)}$, $alkylsulfonylamino_{(C\leq8)}$, $cycloalkylsulfonylamino_{(C\leq8)}$, $amido_{(C\leq8)}$, $-OC(O)NH-alkyl_{(C\leq8)}$, or a substituted version of any of these groups;

$-(CH_2)_mC(O)R_c$, wherein m is 0–6 and R_c is:

hydrogen, hydroxy, halo, amino, −NHOH, or mercapto; or

$alkyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $aryl_{(C\leq8)}$, $aralkyl_{(C\leq8)}$, $heteroaryl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $alkoxy_{(C\leq8)}$, $cycloalkoxy_{(C\leq8)}$, $alkenyloxy_{(C\leq8)}$, $aryloxy_{(C\leq8)}$, $aralkoxy_{(C\leq8)}$, $heteroaryloxy_{(C\leq8)}$, $acyloxy_{(C\leq8)}$, $alkylamino_{(C\leq8)}$, $cycloalkylamino_{(C\leq8)}$, $dialkylamino_{(C\leq8)}$, $arylamino_{(C\leq8)}$,

alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −NH−alkoxy$_{(C\leq 8)}$, −NH–heterocycloalkyl$_{(C\leq 8)}$, −NH–amido$_{(C\leq 8)}$, or a substituted version of any of these groups;

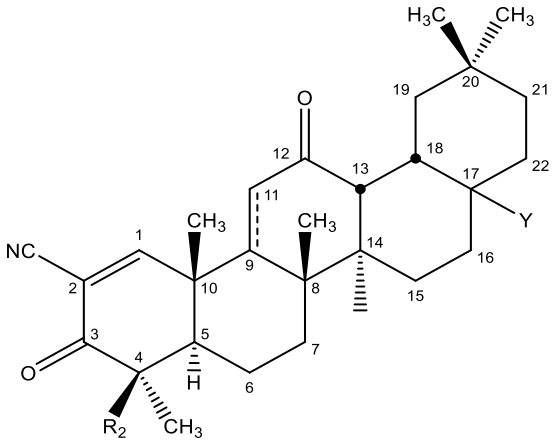
−NHC(O)R_e, wherein R_e is:

hydrogen, hydroxy, amino; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt thereof.

7. The ~~method~~ use of claim 6, wherein the compound is further defined as:



(III),

wherein:

R_2 is hydrogen or methyl;

Y is:

−H, −OH, −SH, −CN, −F, −CF_3, −NH_2 or −NCO;

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 12)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 12)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, aralkylamino$_{(C\leq 8)}$, alkylthio$_{(C\leq 8)}$, acylthio$_{(C\leq 8)}$,

alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, or substituted versions of any of these groups;

−alkanediyl$_{(C\leq 8)}$−R_b, −alkenediyl$_{(C\leq 8)}$−R_b, or a substituted version of any of these groups, wherein R_b is:

hydrogen, hydroxy, halo, amino or mercapto; or

heteroaryl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, aralkylamino$_{(C\leq 8)}$, heteroarylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −OC(O)NH−alkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

$-(CH_2)_mC(O)R_c$, wherein m is 0–6 and R_c is:

hydrogen, hydroxy, halo, amino, −NHOH, or mercapto; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −NH−alkoxy$_{(C\leq 8)}$, −NH–heterocycloalkyl$_{(C\leq 8)}$, −NH–amido$_{(C\leq 8)}$, or a substituted version of any of these groups;

$-NHC(O)R_e$, wherein R_e is:

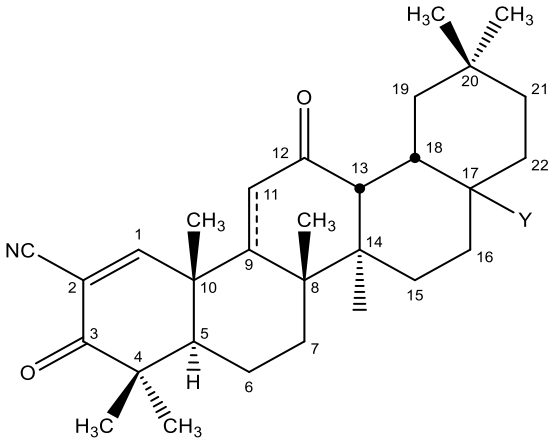
hydrogen, hydroxy, amino; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$,

cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt thereof.

8. The ~~method~~ use of claim 7, wherein the compound is further defined as:



(IV),

wherein:

Y is:

−H, −OH, −SH, −CN, −F, −CF_3, −NH_2 or −NCO;

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 12)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 12)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, aralkylamino$_{(C\leq 8)}$, alkylthio$_{(C\leq 8)}$, acylthio$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, or substituted versions of any of these groups;

−alkanediyl$_{(C\leq 8)}$−R_b, −alkenediyl$_{(C\leq 8)}$−R_b, or a substituted version of any of these groups, wherein R_b is:

hydrogen, hydroxy, halo, amino or mercapto; or

heteroaryl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, aralkylamino$_{(C\leq 8)}$, heteroarylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$,

−OC(O)NH−alkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

−$(CH_2)_m$C(O)R_c, wherein m is 0–6 and R_c is:

hydrogen, hydroxy, halo, amino, −NHOH, or mercapto; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −NH−alkoxy$_{(C\leq 8)}$, −NH–heterocycloalkyl$_{(C\leq 8)}$, −NH–amido$_{(C\leq 8)}$, or a substituted version of any of these groups;

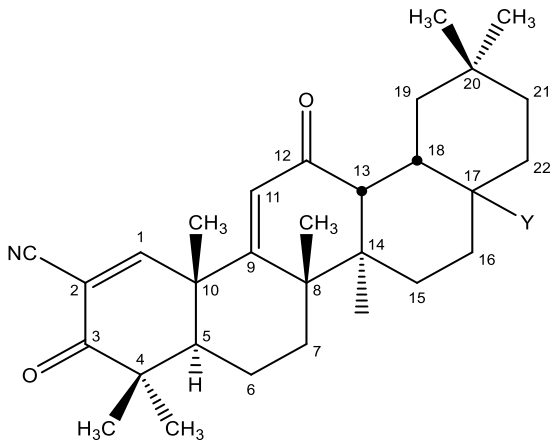
−NHC(O)R_e, wherein R_e is:

hydrogen, hydroxy, amino; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt thereof.

9. The ~~method~~ use of claim 8, wherein the compound is further defined as:



(V),

wherein:

Y is:

−H, −OH, −SH, −CN, −F, $-CF_3$, $-NH_2$ or −NCO;

$alkyl_{(C\leq 8)}$, $cycloalkyl_{(C\leq 8)}$, $alkenyl_{(C\leq 8)}$, $alkynyl_{(C\leq 8)}$, $aryl_{(C\leq 12)}$, $aralkyl_{(C\leq 12)}$, $heteroaryl_{(C\leq 8)}$, $heterocycloalkyl_{(C\leq 12)}$, $alkoxy_{(C\leq 8)}$, $cycloalkoxy_{(C\leq 8)}$, $aryloxy_{(C\leq 12)}$, $acyloxy_{(C\leq 8)}$, $alkylamino_{(C\leq 8)}$, $cycloalkylamino_{(C\leq 8)}$, $dialkylamino_{(C\leq 8)}$, $arylamino_{(C\leq 8)}$, $aralkylamino_{(C\leq 8)}$, $alkylthio_{(C\leq 8)}$, $acylthio_{(C\leq 8)}$, $alkylsulfonylamino_{(C\leq 8)}$, $cycloalkylsulfonylamino_{(C\leq 8)}$, or substituted versions of any of these groups;

$-alkanediyl_{(C\leq 8)}-R_b$, $-alkenediyl_{(C\leq 8)}-R_b$, or a substituted version of any of these groups, wherein R_b is:

hydrogen, hydroxy, halo, amino or mercapto; or

$heteroaryl_{(C\leq 8)}$, $alkoxy_{(C\leq 8)}$, $cycloalkoxy_{(C\leq 8)}$, $alkenyloxy_{(C\leq 8)}$, $aryloxy_{(C\leq 8)}$, $aralkoxy_{(C\leq 8)}$, $heteroaryloxy_{(C\leq 8)}$, $acyloxy_{(C\leq 8)}$, $alkylamino_{(C\leq 8)}$, $cycloalkylamino_{(C\leq 8)}$, $dialkylamino_{(C\leq 8)}$, $arylamino_{(C\leq 8)}$, $aralkylamino_{(C\leq 8)}$, $heteroarylamino_{(C\leq 8)}$, $alkylsulfonylamino_{(C\leq 8)}$, $cycloalkylsulfonylamino_{(C\leq 8)}$, $amido_{(C\leq 8)}$, $-OC(O)NH-alkyl_{(C\leq 8)}$, or a substituted version of any of these groups;

$-(CH_2)_mC(O)R_c$, wherein m is 0–6 and R_c is:

hydrogen, hydroxy, halo, amino, −NHOH, or mercapto; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, alkenyloxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, alkylsulfonylamino$_{(C\leq 8)}$, cycloalkylsulfonylamino$_{(C\leq 8)}$, amido$_{(C\leq 8)}$, −NH−alkoxy$_{(C\leq 8)}$, −NH–heterocycloalkyl$_{(C\leq 8)}$, −NH–amido$_{(C\leq 8)}$, or a substituted version of any of these groups;

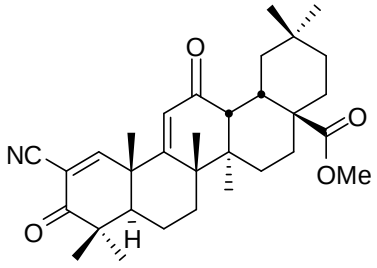
−NHC(O)R_e, wherein R_e is:

hydrogen, hydroxy, amino; or

alkyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, aryl$_{(C\leq 8)}$, aralkyl$_{(C\leq 8)}$, heteroaryl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, alkoxy$_{(C\leq 8)}$, cycloalkoxy$_{(C\leq 8)}$, aryloxy$_{(C\leq 8)}$, aralkoxy$_{(C\leq 8)}$, heteroaryloxy$_{(C\leq 8)}$, acyloxy$_{(C\leq 8)}$, alkylamino$_{(C\leq 8)}$, cycloalkylamino$_{(C\leq 8)}$, dialkylamino$_{(C\leq 8)}$, arylamino$_{(C\leq 8)}$, or a substituted version of any of these groups;

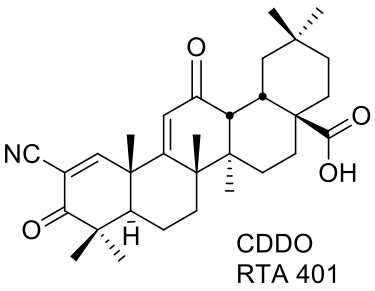
or a pharmaceutically acceptable salt thereof.

10. The ~~method~~ use of claim 9, wherein the compound is further defined as:



.

11. The ~~method~~ use of any one of claims 1-9, wherein the compound is not



CDDO
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12. The method according to any one of claims 1-11, wherein the patient does not have cardiovascular disease.

13. The method according to any one of claims 1-11, wherein the patient has cardiovascular disease.

14. The method according to either claim 12 or claim 13, wherein the cardiovascular disease is left-sided myocardial disease.

15. The method according to either claim 12 or claim 13, wherein the cardiovascular disease is atherosclerosis.

16. The method according to either claim 12 or claim 13, wherein the cardiovascular disease is restenosis.

17. The method according to either claim 12 or claim 13, wherein the cardiovascular disease is thrombosis.

18. The method according to either claim 12 or claim 13, wherein the cardiovascular disease is pulmonary hypertension.

19. The method of claim 18, wherein the pulmonary hypertension is World Health Organization (WHO) Class I pulmonary hypertension (pulmonary arterial hypertension or PAH).

20. The method of claim 19, wherein the pulmonary hypertension is pulmonary arterial hypertension associated with connective tissue disease.

21. The method of claim 19, wherein the pulmonary hypertension is idiopathic pulmonary arterial hypertension.

22. The method of claim 18, wherein the pulmonary hypertension is WHO Class II pulmonary hypertension.

23. The method of claim 18, wherein the pulmonary hypertension is WHO Class III pulmonary hypertension.

24. The method of claim 18, wherein the pulmonary hypertension is WHO Class IV pulmonary hypertension.

25. The method of claim 18, wherein the pulmonary hypertension is WHO Class V pulmonary hypertension.

26. The method according to any one of claims 1-25, wherein the patient does not have endothelial dysfunction.

27. The method according to any one of claims 1-25, wherein the patient has endothelial dysfunction.

28. The method according to any one of claims 1-27, wherein the patient does not have Stage 4 or higher chronic kidney disease.

29. The method according to any one of claims 1-27, wherein the patient does not have an estimated glomerular filtration rate (eGFR) less than 45 mL/min/1.73 m^2.

30. The method according to any one of claims 1-27, wherein the patient does not have an elevated albumin/creatinine ratio (ACR) is greater than 2000 mg/g.

31. The method according to any one of claims 1-30, wherein the patient does not have diabetes.

32. The method according to any one of claims 1-30, wherein the patient has diabetes.

33. The method of either claim 31 or claim 32, wherein the diabetes is Type 2 diabetes.

34. The method according to any one of claims 1-33, wherein the patient does not have a complication associated with diabetes.

35. The method according to any one of claims 1-33, wherein the patient has a complication associated with diabetes.

~~36. The method according to either claim 34 or claim 35, wherein the complication associated with diabetes is diabetic nephropathy.~~

~~37. The method according to either claim 34 or claim 35, wherein the complication is selected from the group consisting of obesity, stroke, peripheral vascular disease, neuropathy, myonecrosis, retinopathy and metabolic syndrome (syndrome X).~~

~~38. The method according to any one of claims 1-37, wherein the patient does not have insulin resistance.~~

~~39. The method according to any one of claims 1-37, wherein the patient has insulin resistance.~~

~~40. The method according to any one of claims 1-39, wherein the patient does not have fatty liver disease.~~

~~41. The method according to any one of claims 1-39, wherein the patient has fatty liver disease.~~

~~42. The method according to any one of claims 1-39, wherein the patient does not have hepatic impairment.~~

~~43. The method according to any one of claims 1-39, wherein the patient has hepatic impairment.~~

~~44. The method according to any one of claims 1-43, wherein the patient is not overweight.~~

~~45. The method according to any one of claims 1-43, wherein the patient is overweight.~~

~~46. The method according to either claim 44 or claim 45, where the patient is obese.~~

~~47. The method of claim 46, where the obesity is class I.~~

~~48. The method of claim 46, where the obesity is class II.~~

~~49. The method of claim 46, where the obesity is class III.~~

~~50. The method according to either claim 45 or claim 46, where the patient's body mass index (BMI) is from 25 kg/m^2 to 30 kg/m^2.~~

51. The method according to either claim 45 or claim 46, where the patient's BMI is from 30 kg/m^2 to 35 kg/m^2.

52. The method according to either claim 45 or claim 46, where the patient's BMI is from 35 kg/m^2 to 40 kg/m^2.

53. The method according to either claim 45 or claim 46, where the patient's BMI is from 40 kg/m^2 to 80 kg/m^2.

54. The method according to any one of claims 1-41, wherein the patient has cancer.

55. The method according to any one of claims 1-41, wherein the patient does not have cancer.

56. The method of either claim 54 or claim 55, wherein the cancer is an advanced solid tumor or lymphoid malignancy.

57. The method of either claim 54 or claim 55, wherein the cancer is selected from the groups consisting of breast cancer, prostate cancer, colon cancer, brain cancer, melanoma, pancreatic cancer, ovarian cancer, leukemia, or bone cancer.

58. The method of claim 57, wherein the cancer is an advanced malignant melanoma.

59. The method of claim 57, wherein the cancer is pancreatic cancer.

60. The method according to any one of claims 1-59, wherein the patient does not have chronic obstructive pulmonary disease (COPD).

61. The method according to any one of claims 1-59, wherein the patient has chronic obstructive pulmonary disease (COPD).

62. The method according to any one of claims 1-61, wherein the patient is a smoker.

63. The method according to any one of claims 1-61, wherein the patient is not a smoker.

64. The method according to any one of claims 1-63, wherein the patient has impaired renal function.

~~65. The method according to any one of claims 1-64, wherein the patient has elevated levels of at least one biomarker associated with renal disease.~~

~~66. The method of claim 65, wherein the biomarker is serum creatinine.~~

~~67. The method of claim 65, wherein the biomarker is cystatin C.~~

~~68. The method of claim 65, wherein the biomarker is uric acid.~~

12~~69~~. The ~~method~~ use according to any one of claims 1-11~~68~~, wherein the patient has radiographic infiltrates by imaging prior to treatment.

13~~70~~. The ~~method~~ use of claim 12~~69~~, wherein the imaging is a chest X-ray or CT scan.

14~~71~~. The ~~method~~ use according to any one of claims 1-~~70~~13, wherein the patient's blood oxygen saturation, at rest, is at most 94% prior to treatment.

15~~72~~. The ~~method~~ use according to any one of claims 1-~~71~~14, wherein the patient requires supplemental oxygen prior to treatment.

16~~73~~. The ~~method~~ use according to any one of claims 1-~~72~~15, wherein the patient requires non-invasive ventilation prior to treatment.

17~~74~~. The ~~method~~ use according to any one of claims 1-~~73~~16, wherein the patient requires mechanical ventilation for up to 2 days prior to treatment.

18~~75~~. The ~~method~~ use according to any one of claims 1-~~68~~11, wherein the ~~method is a method of~~medicament is for treating or preventing COVID-19 in a patient in need thereof.

19~~76~~. The ~~method~~ use according to any one of claim 1-~~68~~11, wherein the coronavirus is a betacoronavirus.

20~~77~~. The ~~method~~ use according to any one of claims 1-~~68~~11, wherein the coronavirus is a severe acute respiratory syndrome-related (SARS) coronavirus.

21~~78~~. The ~~method~~ use according to any one of claims 1-~~75~~18, wherein the coronavirus is SARS-CoV-2.

2279. The ~~method~~ use according to any one of claims 1-7821, wherein the ~~method~~ medicament is for inhibiting~~inhibits~~ replication of SARS-CoV-2 in the patient.

2380. The ~~method~~ use according to any one of claims 1-7922, wherein the ~~method~~ medicament is for suppressing or preventing~~suppresses or prevents~~ systemic inflammation in the patient.

2481. The ~~method~~ use of claim 8023, wherein the ~~method~~ medicament is for suppressing or preventing~~suppresses or prevents~~ a cytokine storm in the patient.

2582. The ~~method~~ use according to any one of claims 1-8023, wherein the ~~method~~ medicament is for suppressing or preventing~~suppresses or prevents~~ lung inflammation in the patient.

2683. The ~~method~~ use according to any one of claims 1-8225, wherein the ~~method~~ medicament is for treating or preventing~~treats or prevents~~ inflammation-induced liver damage in the patient.

2784. The ~~method~~ use according to any one of claims 1-8326, wherein the ~~method~~ medicament is for treating or preventing~~treats or prevents~~ acute lung injury in the patient.

2885. The ~~method~~ use according to any one of claims 1-8427, wherein the medicament is for treating or preventing~~method treats or prevents~~ kidney damage in the patient.

2986. The ~~method~~ use according to any one of claims 1-8528, wherein the medicament is for treating or preventing~~method treats or prevents~~ acute kidney injury in the patient.

3087. The ~~method~~ use according to any one of claims 1-8629, wherein the medicament is for improving~~method improves~~ kidney function in the patient.

3188. The ~~method~~ use according to any one of claims 1-8730, wherein the medicament is for increasing~~method increases~~ the patient's estimated glomerular filtration rate (eGFR).

3289. The ~~method~~ use according to any one of claims 1-8831, wherein the medicament is for treating or preventing~~method treats or prevents~~ acute respiratory distress syndrome in the patient.

33~~90~~. The ~~method~~ use according to any one of claims 1-~~89~~32, wherein the ~~method treats or prevents~~medicament is for treating or preventing seizures in the patient.

34~~91~~. The ~~method~~ use according to any one of claims 1-~~90~~33, wherein the ~~method treats or prevents~~medicament is for treating or preventing brain inflammation in the patient.

35~~92~~. The ~~method~~ use according to any one of claims 1-~~91~~34, wherein the ~~method reduces~~medicament is for reducing the hospitalization time of the patient.

36~~93~~. The ~~method~~ use according to any one of claims 1-~~92~~35, wherein the ~~method reduces~~medicament is for reducing the time spent in the intensive care unit.

37~~94~~. The ~~method~~ use according of any one of claims 1-~~91~~34, wherein the ~~method delays~~medicament is for delaying the need for hospitalization of the patient.

38~~95~~. The ~~method~~ use according of any one of claims 1-~~94~~37, wherein the ~~method increases~~medicament is for increasing the probability of survival of the patient.

39~~96~~. The ~~method~~ use according of any one of claims 1-~~95~~38, wherein the ~~method prevents~~medicament is for preventing the need for non-invasive mechanical ventilation.

40~~97~~. The ~~method~~ use according of any one of claims 1-~~96~~39, wherein the ~~method prevents~~medicament is for preventing the need for invasive mechanical ventilation.

41~~98~~. The ~~method~~ use according of any one of claims 1-~~97~~40, wherein the ~~method prevents~~medicament is for preventing respiratory failure.

42~~99~~. The ~~method~~ use according to any one of claims 1-~~98~~41, wherein the ~~method lowers~~medicament is for lowering the patient's WHO score.

43~~100~~. The ~~method~~ use according of any one of claims 1-~~99~~42, wherein the ~~method prevents~~medicament is for preventing the need for renal replacement therapy.

~~101. The method according to any one of claims 1-100, wherein the patient exhibits microhematuria.~~

~~102. The method of claim 101, wherein the patient exhibits hematuria.~~

~~103. The method according to any one of claims 1-102, wherein the patient further exhibits microalbuminuria.~~

~~104. The method of claim 103, wherein the patient exhibits albuminuria.~~

~~105. The method of either claim 103 or claim 104, wherein the concentration of albumin in the urine is between 30 µg per mg of creatinine and 300 µg per mg of creatinine.~~

~~106. The method of either claim 103 or claim 104, wherein the concentration of albumin in the urine is greater than 300 µg per mg of creatinine.~~

~~107. The method according to any one of claims 1-106, wherein the patient further exhibits proteinuria.~~

~~108. The method of claim 107, wherein the patient exhibits overt proteinuria.~~

~~109. The method of either claim 107 or claim 108, wherein the patient's urine exhibits the presence of multiple proteins.~~

~~110. The method according to any one of claims 107-109, wherein the patient's urine exhibits a protein to creatinine ratio of greater than 0.2 mg/g.~~

~~111. The method of claim 110, wherein the patient's urine exhibits a protein to creatinine ratio of greater than 1.0 mg/g.~~

~~112. The method according to any one of claims 1-111, wherein the patient has an eGFR less than 45 mL/min/1.73 m^2.~~

~~113. The method of claim 112, wherein the patient exhibits an ACR of less than 2000 mg/g.~~

~~114. The method according to any one of claims 1-113, wherein the patient is less than 75 years old.~~

~~115. The method of claim 114, wherein the patient is less than 70 years old.~~

~~116. The method of claim 114, wherein the patient is less than 60 years old.~~

~~117. The method of claim 116, wherein the patient is less than 40 years old.~~

~~118. The method of claim 117, wherein the patient is less than 30 years old.~~

~~119. The method of claim 118, wherein the patient is less than 25 years old.~~

~~120. The method according to any one of claims 1-119, wherein the patient does not have at least one of the following characteristics:~~

~~(A) a cardiovascular disease;~~

~~(B) an elevated baseline B-type natriuretic peptide (BNP) level;~~

~~(C) an estimated glomerular filtration rate (eGFR) < 45 mL/min/1.73 m^2; and~~

~~(D) an elevated albumin/creatinine ratio (ACR) > 2000 mg/g.~~

~~121. The method of claim 120, wherein the patient does not have two of the characteristics.~~

~~122. The method of claim 120, wherein the patient does not have three of the characteristics.~~

~~123. The method of claim 122, wherein the patient does not have any of said characteristics.~~

~~124. The method according to any one of claims 1-123, wherein the patient has not been intubated for three or more days at the time of treatment.~~

~~125. The method according to any one of claims 1-124, wherein the patient has not been on mechanical ventilation for three or more days at the time of treatment.~~

~~126. The method according to any one of claims 1-124, wherein the patient has not been on invasive mechanical ventilation for three or more days at the time of treatment.~~

~~127. The method according to any one of claims 1-124, wherein the patient has not been intubated for three or more days at the time of treatment.~~

~~128. The method according to any one of claims 1-127, wherein the patient is not known to have an impaired left ventricular ejection fraction, preferably wherein the patient is not known to have a left ventricular ejection fraction (LVEF) of less than 40%.~~

~~129. The method according to any one of claims 1-128, wherein the patient has not been previously hospitalized for heart failure.~~

~~130. The method according to any one of claims 1-129, wherein the patient has not previously experienced cardiac arrest.~~

~~131. The method according to any one of claims 1-130, wherein the patient has not previously experienced shock.~~

~~132. The method according to any one of claims 1-131, wherein the patient has not does not have an uncontrolled bacterial infection.~~

~~133. The method according to any one of claims 1-132, wherein the patient has not does not have an uncontrolled fungal infection.~~

~~134. The method according to any one of claims 1-133, wherein the patient has not does not have another uncontrolled viral infection in addition to the SARS-CoV-2 infection.~~

~~135. The method according to any one of claims 1-134, wherein the patient has not does not have a history of cirrhosis, chronic active hepatitis, or severe hepatic disease.~~

~~136. The method according to any one of claims 1-135, wherein the patient does not have a history of an estimated glomerular filtration rate (eGFR) < 15 mL/min/1.73 m^2.~~

~~137. The method according to any one of claims 1-136, wherein the patient does not have a history of requiring dialysis.~~

~~138. The method according to any one of claims 1-137, wherein the patient does not have an ALT level or AST level that is more than 5 times greater than the ULN.~~

~~139. The method according to any one of claims 1-138, wherein the patient is a human.~~

~~140. The method according to any one of claims 1-139, wherein the patient is male.~~

~~141. The method according to any one of claims 1-139, wherein the patient is female.~~

44~~42~~. The ~~method~~ use according to any one of claims 10-~~14~~143, wherein at least a portion of the compound is present as a crystalline form having an X-ray diffraction pattern (CuKα) comprising significant diffraction peaks at about 8.8, 12.9, 13.4, 14.2 and 17.4 °2θ.

45~~43~~. The ~~method~~ use of claim ~~142~~44, wherein the X-ray diffraction pattern (CuKα) is substantially as shown in FIG. 1A or FIG. 1B.

46~~144~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as an amorphous form having an X-ray diffraction pattern (CuKα) with a peak at approximately 13.5 °2θ, substantially as shown in FIG. 1C, and a transition glass temperature (T_g).

47~~145~~. The ~~method~~ use of claim ~~144~~46, wherein the T_g value is in the range of about 120 °C to about 135 °C.

48~~146~~. The ~~method~~ use of claim ~~145~~47, wherein the T_g value is in the range of about 125 °C to about 130 °C.

49~~147~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as a crystalline form having an X-ray diffraction pattern (CuKα) comprising significant diffraction peaks at about 6.2, 12.4, 15.4, 18.6 and 24.9 °2θ.

50~~148~~. The ~~method~~ use of claim ~~147~~49, wherein the crystalline form is further characterized by one, two, three, four or five additional diffraction peaks selected from the group consisting of 8.6, 13.3, 13.7, 17.1 and 21.7 °2θ.

51~~149~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as a crystalline form having an X-ray diffraction pattern (CuKα) comprising significant diffraction peaks at about 3.6, 7.1, 10.8, 12.4 and 16.5 °2θ.

52~~150~~. The ~~method~~ use of claim ~~149~~51, wherein the crystalline form is further characterized by one, two, three, four or five additional diffraction peaks selected from the group consisting of 12.9, 13.9, 14.8, 18.6 and 20.6°2θ.

53~~151~~. The ~~method~~ use of either claim ~~149~~ 51 or ~~150~~52, wherein the crystalline form is further characterized by a Raman spectrum having peaks at 2949, 1671, 1618 and 1464 ± 4 cm^{-1}.

54~~152~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as a toluene solvate crystalline form having an X-ray diffraction pattern (CuKα) comprising diffraction peaks at about 9.65, 7.58, 7.18, 6.29, 6.06, 5.47, 5.21, 4.77 and 3.07 °2θ.

55~~153~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as a semi-dioxane solvate crystalline form having an X-ray diffraction pattern (CuKα) comprising diffraction peaks at about 10.01, 7.09, 6.84, 6.23, 5.29, 5.20, 5.10, 4.84, and 4.61 °2θ.

56~~154~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as a semi-tetrahydrofuran solvate crystalline form having an X-ray diffraction pattern (CuKα) comprising diffraction peaks at about 10.00, 7.14, 6.80, 6.65, 6.10, 5.62, 5.29, 4.88, and 4.50 °2θ.

57~~155~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as a methanol solvate crystalline form having an X-ray diffraction pattern (CuKα) comprising diffraction peaks at about 8.86, 8.45, 8.17, 7.90, 7.26, 4.67, 6.63, 6.46, and 3.64 °2θ.

58~~156~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present as an anhydrous crystalline form having an X-ray diffraction pattern (CuKα) comprising diffraction peaks at about 12.05, 8.90, 8.49, 8.13, 7.92, 7.29, 6.64, 4.67 and 3.65 °2θ.

59~~157~~. The ~~method~~ use according to any one of claims 10-~~141~~43, wherein at least a portion of the compound is present a dihydrate crystalline form having an X-ray diffraction pattern (CuKα) comprising diffraction peaks at about 8.81, 8.48, 7.91, 7.32, 5.09, 4.24, 3.58, 3.36 and 3.17 °2θ.

60~~158~~. The ~~method~~ use according to any one of claims 1-~~157~~59, wherein the therapeutically effective amount is a daily dose from about 0.1 mg to about 300 mg of the compound.

61~~159~~. The ~~method~~ use of claim ~~158~~60, wherein the daily dose is from about 0.5 mg to about 200 mg of the compound.

62~~160~~. The ~~method~~ use of claim ~~159~~61, wherein the daily dose is from about 1 mg to about 150 mg of the compound.

63~~161~~. The ~~method~~ use of claim ~~160~~62, wherein the daily dose is from about 1 mg to about 75 mg of the compound.

64~~162~~. The ~~method~~ use of claim ~~161~~63, wherein the daily dose is from about 1 mg to about 20 mg of the compound.

65~~163~~. The ~~method~~ use of claim ~~158~~60, wherein the daily dose is from about 2.5 mg to about 30 mg of the compound.

66~~164~~. The ~~method~~ use of claim ~~163~~65, wherein the daily dose is about 2.5 mg of the compound.

67~~165~~. The ~~method~~ use of claim ~~163~~65, wherein the daily dose is about 5 mg of the compound.

68~~166~~. The ~~method~~ use of claim ~~163~~65, wherein the daily dose is about 10 mg of the compound.

69~~167~~. The ~~method~~ use of claim ~~163~~65, wherein the daily dose is about 15 mg of the compound.

70~~168~~. The ~~method~~ use of claim ~~163~~65, wherein the daily dose is about 20 mg of the compound.

71~~169~~. The ~~method~~ use of claim ~~163~~65, wherein the daily dose is about 30 mg of the compound.

~~170. The method according to any of claims 1-157, wherein the therapeutically effective amount is a daily dose is 0.01 – 100 mg of compound per kg of body weight.~~

~~171. The method of claim 170, wherein the daily dose is 0.05 – 30 mg of compound per kg of body weight.~~

~~172. The method of claim 171, wherein the daily dose is 0.1 – 10 mg of compound per kg of body weight.~~

~~173. The method of claim 172, wherein the daily dose is 0.1 – 5 mg of compound per kg of body weight.~~

~~174. The method of claim 173, wherein the daily dose is 0.1 – 2.5 mg of compound per kg of body weight.~~

~~175. The method according to any of claims 1-157, wherein the compound is administered as a single dose to the patient per day.~~

~~176. The method according to any of claims 1-157, wherein the compound is administered as two or more doses to the patient per day.~~

72~~177~~. The ~~method~~ use according to any one of claims 1-~~157~~59, wherein the ~~compound is~~medicament is formulated for administration ~~administered~~ orally, intraarterially or intravenously.

73~~178~~. The ~~method~~ use according to any one of claims 1-~~157~~59, wherein the ~~compound~~ medicament is formulated as a hard or soft capsule or a tablet.

74~~179~~. The ~~method~~ use according to any one of claims 1-~~157~~59, wherein the ~~compound~~ medicament is formulated as a solid dispersion comprising (i) the compound and (ii) an excipient.

75~~180~~. The ~~method~~ use of claim ~~179~~74, wherein the excipient is a methacrylic acid – ethyl acrylate copolymer.

76~~181~~. The ~~method~~ use of claim ~~180~~75, wherein the copolymer comprises methacrylic acid and ethyl acrylate at a 1:1 ratio.

~~182. The method according to any of claims 1-181, further comprising administering to patient a second therapy.~~

~~183. The method of claim 182, wherein the second therapy comprises administering to said patient a therapeutically effective amount of a second drug or of convalescent plasma.~~

~~184. The method of claim 183, wherein the second drug is an anti-platelet drug, an anti-coagulation agent, an anti-viral drug, a corticosteroid, or a human type I IFN.~~

~~185. The method of claim 183, wherein the second drug is remdesivir or tocilizumab.~~