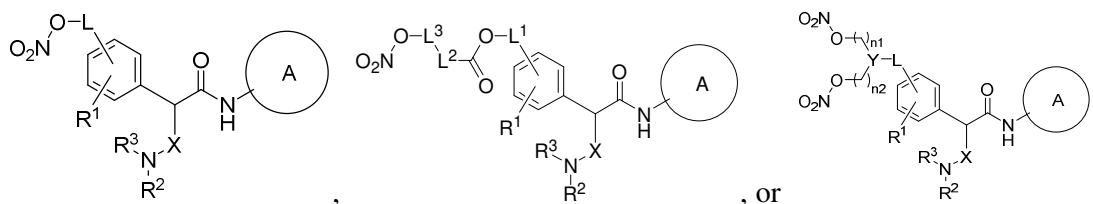
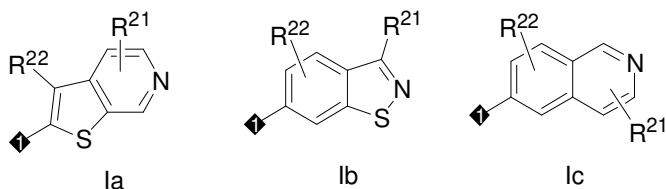


WHAT IS CLAIMED IS:

1. A small molecule compound of NO donor, characterized in that the small molecule compound of NO donor is a compound shown in the following structural formulae, or a stereoisomer, a geometric isomer, a tautomer, a racemate, a deuterated isotopic derivative, a hydrate, a solvate, or a pharmaceutically acceptable salt thereof;



wherein ring A is a substituted or unsubstituted heteroaromatic ring selected from formula Ia, formula Ib, or formula Ic,



- R^{21} is selected from hydrogen, a hydroxyl group, a halogen, an amino group, a cyano group, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, or a substituted or unsubstituted heteroalkyl group;

R^{22} is selected from hydrogen, a halogen, a cyano group, a substituted or unsubstituted alkyl group, or a substituted or unsubstituted alkoxy group;

- X is selected from $(CH_2)_n$, wherein n is selected from 0, 1, 2, or 3;

- L is a linking group selected from a substituted or unsubstituted alkylene group, a substituted or unsubstituted heteroalkylene group, a substituted or unsubstituted alkyleneoxy group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted heterocyclic group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heteroaryl group, or a substituted or unsubstituted ester group;

L^1 is a chemical bond or a substituted or unsubstituted alkylene group;

L^2 is selected from a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkyleneoxy group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heteroaryl group;

- L^3 is a chemical bond or a substituted or unsubstituted alkyleneoxy group;

n_1 is 0 or a natural number;

n_2 is 0 or a natural number;

Y is selected from a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted heterocyclic group, a substituted or unsubstituted

aryl group, or a substituted or unsubstituted heteroaryl group;

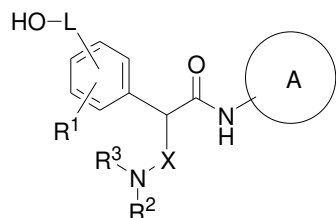
R^1 is selected from hydrogen, a hydroxyl group, a halogen, an amino group, a cyano group, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted alkynyl group, or a substituted or unsubstituted heteroalkyl group;

R^2 and R^3 are each independently selected from hydrogen, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, or an amino protecting group;

alternatively, R^2 and R^3 are connected to each other to form a substituted or unsubstituted cycloheteroalkyl group.

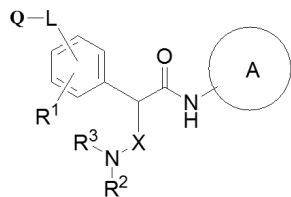
2. A preparation method of the small molecule compound of NO donor of claim 1, characterized in that:

the small molecule compound of NO donor is obtained by a nitration reaction of a hydroxyl group in a compound shown in the following structure;



3. A preparation method of the small molecule compound of NO donor of claim 1, characterized in that:

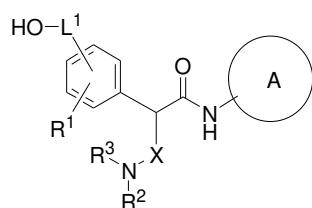
the small molecule compound of NO donor is obtained by a nitration reaction of a halogen in a compound shown in the following structure;



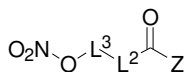
- wherein Q is a halogen.

4. A preparation method of the small molecule compound of NO donor of claim 1, characterized in that:

the small molecule compound of NO donor is obtained by a coupling reaction of compounds represented by the following formula IIIa and formula IIIb;



IIIa



IIIb

Z is a halogen.

5. Use of the small molecule compound of NO donor of claim 1 in the manufacture of an inhibitor of a ROCK kinase.

- 5 6. A small molecule compound of NO donor, characterized in that the small molecule compound of NO donor is selected from the following compounds, or a stereoisomer, a geometric isomer, a tautomer, a racemate, a deuterated isotopic derivative, a hydrate, a solvate, or a pharmaceutically acceptable salt thereof:

1		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl nitrate;
2		(3-amino-1-(isoquinolin-6-ylamino)-1-oxoprop-2-yl)benzyl nitrate;
3		4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)phenylacetate;
4		(S)-4-(3-amino-1-(benzo[d]isothiazol-6-ylamino)-1-oxoprop-2-yl)benzyl nitrate;
5		1-(4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)phenyl)ethane-1,2-dinitrate;
6		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 3-(nitrooxy)cyclobutene-1-carboxylate;

7		3-(4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)phenoxy)propane-1,2-dinitrate;
8		3-(4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)phenyl)propyl nitrate;
9		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 5-(nitrooxy)valerate;
10		4-(4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)phenyl)butyl nitrate;
11		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)phenethyl nitrate;
12		(S)-4-(3-amino-1-((4-fluorothieno[2,3-c]pyridin-2-yl)amino)-1-oxoprop-2-yl)benzyl nitrate;
13		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl(4-(nitrooxy)butyl)carbonate;
14		2-(4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)phenoxy)propane-1,3-dinitrate;
15		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 4-(nitrooxy)cyclohexane-1-carboxylic acid;
16		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 4-(2-(nitrooxy)ethyl)benzoate;
17		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 2-methyl-4-(2-(nitrooxy)ethyl)benzoate;

18		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 2-methyl-5-(2-(nitrooxy))ethylbenzoate;
19		4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl(1s,4R)-4-(nitrooxy)cyclohexane-1-carboxylate;
20		4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl(1r,4S)-4-(nitrooxy)cyclohexane-1-carboxylate;
21		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 3-((nitrooxy)methyl)benzoate;
22		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 4-((nitrooxy)methyl)benzoate;
23		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 3-((nitrooxy)methyl)cyclobutane-1-carboxylate;
24		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl(2-(nitrooxy)ethyl)carbamate;
25		4-((S)-3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl (1R,3S)-3-(nitrooxy)cyclobutane-1-carboxylate;
26		(S)-4-(3-amino-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 2-methyl-3-(nitrooxy)-2-((nitrooxy)methyl)propionate;
27		4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl(1S,4R)-4-((nitrooxy)methyl)cyclohexane-1-carboxylic acid;
28		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 3-(2-(nitrooxy)ethyl)benzoate;
29		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 2-(1-((nitrooxy)methyl)cyclopropyl)acetate;
30		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 2,2-dimethyl-5-(nitrooxy)valerate;

31		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 6-(nitrooxy)hexanoate;
32		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 1-((nitrooxy)methyl)cyclopropane carboxylate;
33		4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl(R)-4,5-bis(nitrooxy)valeric acid;
34		(1S,3R)-4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 3-((nitrooxy)methyl)cyclobutane-1-carboxylate;
35		(1R,3S)-4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 3-((nitrooxy)methyl)cyclobutane-1-carboxylate;
36		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 3,3-bis((nitrooxy)methyl)cyclobutane-1-carboxylate;
37		(3R,4R)-4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 3,4-bis(nitrooxy)cyclopentane carboxylate;
38		(1R,4S)-4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 4-((nitrooxy)methyl)cyclohexanecarboxylic acid;
39		(S)-4-((S)-3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 1-(2-(nitrooxy)ethyl)pyrrolidine-2-carboxylate;
40		(S)-4-(3-(dimethylamino)-1-oxo-1-(thieno[2,3-c]pyridin-2-ylamino)propan-2-yl)benzyl 2-methyl-3-(nitrooxy)-2-((nitrooxy)methyl)propionate;
41		(S)-4-(3-amino-1-oxy-1-(thieno[2,3-c]pyridin-2-ylamino)prop-2-yl)benzyl 3-((nitrooxy)methyl)bicyclo[1.1.1]pentane-1-carboxylate.