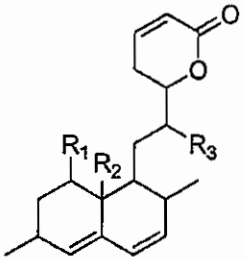
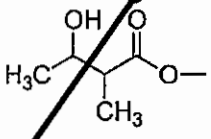
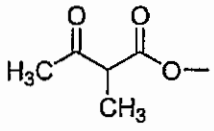
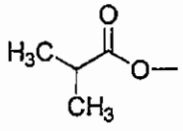
What is claimed is:

1. A compound shown in Formula I, or a pharmaceutically acceptable salt thereof,



Formula I

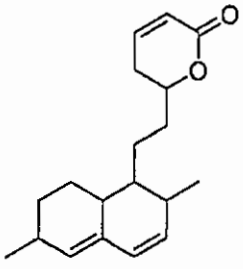
wherein,

R_1 is selected from the group consisting of hydrogen, hydroxyl, C_{1-6} straight or branched —alkoxyl,  ,  , and  ;

R_2 is hydrogen or C_{1-6} alkyl;

R_3 is one or more same or different groups selected from the group consisting of hydrogen, hydroxyl, and C_{1-6} straight or branched alkoxyl.

2. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, which is shown in the following Formula II:



Formula II.

3. A pharmaceutical composition, which comprises the compound of claim

1 or 2 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

4. The pharmaceutical composition according to claim 3, which is in the form of tablets, granules, capsules, pills, suppositories, pulvis, unguentums, drops, aerosols, inhalable powders, solutions, suspensions, buccal tablets, lyophilized powders, or emulsions.

5. A method for preparing the compound of claim 1 or 2, comprising the following steps:

1) adding *Monascus*-fermented rice or an alcohol extract thereof to an organic solvent 1-10 times in volume, performing ultrasonic extraction at least one time, 10-60 minutes every time, combining the extracting solutions, concentrating under reduced pressure to obtain a concentrated solution;

2) loading the concentrated solution on a silica gel column for separation, eluting in gradient manner with one or more eluent selected from the group consisting of petroleum ether, ethyl acetate and methanol; and

3) subjecting the fraction containing the compound of Formula I or Formula II as obtained by elution in step 2) to the purification of silica gel column chromatography, sephadex LH-20 column chromatography, and high performance liquid chromatography to obtain the compound.

6. The method according to claim 5, which meets any one of the following items (1) – (8):

(1) in step 1), said organic solvent is one or more selected from the group consisting of n-hexane, dichloromethane, ethyl acetate, n-butanol,

methanol, 50%-95% (v/v) methanol aqueous solution, ethanol, and 50%-95% (v/v) ethanol aqueous solution;

(2) in step 1), the added organic solvent is of 2-6 times in volume;

(3) in step 1), the ultrasonic extraction is performed 3-5 times, 20-40 minutes every time; preferably, in step 1), the ultrasonic extraction is performed 3 times, 20-40 minutes every time;

(4) in step 1), said alcohol extract of *Monascus*-fermented rice is a dry powder of the content of Xuezhikang; and

(5) in step 2), petroleum ether and ethyl acetate in volume ratio of 75: 25, 50: 50, and 0: 100 in order, and/or ethyl acetate and methanol in volume ratio of 100: 0, 95: 5, 70: 30, and 50: 50 in order are used for gradient elution;

(6) in step 3), said silica gel column chromatography is eluted with petroleum ether-dichloromethane-methanol (10: 10: 1);

(7) in step 3), the sephadex LH-20 gel column for separation uses dichloromethane-methanol (1:1) as the mobile phase;

(8) in step 3), said purification of semi-preparative high performance liquid chromatography uses acetonitrile-water solution (79:21) as the mobile phase, C18 semi-preparative chromatography column as the immobile phase, and fractions of 16.08 min chromatographic peak are collected and concentrated.

7. An organic solvent extract of *Monascus*-fermented rice or a column chromatography fraction thereof, characterized in that the extract or the column chromatography fraction comprises the compound of claim 1 or 2 or a pharmaceutically acceptable salt thereof; specifically, the organic solvent is selected from the group consisting of n-hexane, dichloromethane, ethyl acetate, n-butanol, methanol, 50%-95% (v/v)

methanol aqueous solution, ethanol, and 50%-95% (v/v) ethanol aqueous solution; specifically, said column chromatography is silica gel column chromatography and/or sephadex LH-20 column chromatography.

8. Use of the compound or a pharmaceutically acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7 in the manufacture of a HMG-CoA reductase inhibitor.

9. Use of the compound or a pharmaceutically acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7 in the manufacture of a medicament for the treatment or prophylaxis of dyslipidemia, hyperlipemia, hypercholesterolemia, or atherosclerosis, or for regulating or reducing blood lipid, or for regulating or reducing cholesterol, or for adjunctive treatment of cardiovascular and cerebrovascular diseases caused by hyperlipidemia and atherosclerosis.

10. Use of the compound or a pharmaceutically acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7 in the manufacture of a medicament for eliminating dampness to expel phlegm, activating blood circulation to dissolve accumulated stasis of blood, or invigorating spleen to promote digestion.

11. A method for - treatment or prophylaxis of dyslipidemia, hyperlipemia, hypercholesterolemia, or atherosclerosis, or for adjunctive treatment of cardiovascular and cerebrovascular diseases caused by hyperlipidemia and atherosclerosis in a mammal, comprising a step of administering an effective amount of the compound or a pharmaceutically acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7.

12. A method for regulating blood lipid or reducing blood lipid in a mammal as the subject, comprising a step of administering an effective amount of the compound or a pharmaceutically acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7.

13. A method for regulating cholesterol or reducing cholesterol in a mammal as the subject, comprising a step of administering an effective amount of the compound or a pharmaceutically acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7.

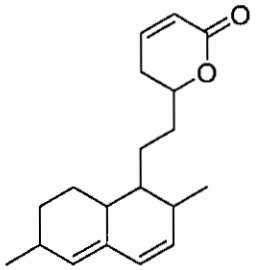
14. A method for eliminating dampness to expel phlegm, activating blood circulation to dissolve accumulated stasis of blood, or invigorating spleen to promote digestion in a mammal as the subject, comprising a step of administering an effective amount of the compound or a pharmaceutically

acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7.

15. A method for inhibiting HMG-CoA reductase in vivo or in vitro, comprising a step of administering an effective amount of the compound or a pharmaceutically acceptable salt thereof of claim 1 or 2 or the pharmaceutical composition of claim 3 or 4 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 7.

What is claimed is:

1. A compound shown in the following Formula II, or a pharmaceutically acceptable salt thereof:



Formula II.

2. A pharmaceutical composition, which comprises the compound of claim 1 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient, and said pharmaceutical composition is not Xuezhikang or the content thereof or *Monascus*-fermented rice or the alcohol extract thereof.

3. The pharmaceutical composition according to claim 2, which is in the form of tablets, granules, capsules, pills, suppositories, pulvis, unguentums, drops, aerosols, inhalable powders, solutions, suspensions, buccal tablets, lyophilized powders, or emulsions.

4. A method for preparing the compound of claim 1, comprising the following steps:

1) adding *Monascus*-fermented rice or an alcohol extract thereof to an organic solvent 1-10 times in volume, performing ultrasonic extraction at least one time, 10-60 minutes every time, combining the extracting solutions, concentrating under reduced pressure to obtain a concentrated solution;

2) loading the concentrated solution on a silica gel column for separation, eluting in gradient manner with one or more eluent selected from the group consisting of petroleum ether, ethyl acetate and methanol; and

3) subjecting the fraction containing the compound of Formula I or Formula II as obtained by elution in step 2) to the purification of silica gel column chromatography, sephadex LH-20 column chromatography, and high performance liquid chromatography to obtain the compound.

5. The method according to claim 4, which meets any one of the following items (1) – (8):

(1) in step 1), said organic solvent is one or more selected from the group consisting of n-hexane, dichloromethane, ethyl acetate, n-butanol, methanol, 50%-95% (v/v) methanol aqueous solution, ethanol, and 50%-95% (v/v) ethanol aqueous solution;

(2) in step 1), the added organic solvent is of 2-6 times in volume;

(3) in step 1), the ultrasonic extraction is performed 3-5 times, 20-40 minutes every time; preferably, in step 1), the ultrasonic extraction is performed 3 times, 20-40 minutes every time;

(4) in step 1), said alcohol extract of *Monascus*-fermented rice is a dry powder of the content of Xuezhikang; and

(5) in step 2), petroleum ether and ethyl acetate in volume ratio of 75: 25, 50: 50, and 0: 100 in order, and/or ethyl acetate and methanol in volume ratio of 100: 0, 95: 5, 70: 30, and 50: 50 in order are used for gradient elution;

(6) in step 3), said silica gel column chromatography is eluted with petroleum ether-dichloromethane-methanol (10: 10: 1);

(7) in step 3), the sephadex LH-20 gel column for separation uses

dichloromethane-methanol (1: 1) as the mobile phase;
(8) in step 3), said purification of semi-preparative high performance liquid chromatography uses acetonitrile-water solution (79:21) as the mobile phase, C18 semi-preparative chromatography column as the immobile phase, and fractions of 16.08 min chromatographic peak are collected and concentrated.

6. An organic solvent extract of *Monascus*-fermented rice or a column chromatography fraction thereof, characterized in that the extract or the column chromatography fraction comprises the compound of claim 1 or a pharmaceutically acceptable salt thereof; and said organic solvent is selected from the group consisting of n-hexane, dichloromethane, ethyl acetate, n-butanol, methanol, 50%-95% (v/v) methanol aqueous solution, ethanol, and 50%-95% (v/v) ethanol aqueous solution; specifically, said column chromatography is silica gel column chromatography and/or sephadex LH-20 column chromatography.

7. Use of the compound or a pharmaceutically acceptable salt thereof of claim 1 or the pharmaceutical composition of claim 2 or 3 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 6 in the manufacture of a HMG-CoA reductase inhibitor.

8. Use of the compound or a pharmaceutically acceptable salt thereof of claim 1 or the pharmaceutical composition of claim 2 or 3 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 6 in the manufacture of a medicament for the treatment or prophylaxis of dyslipidemia,

hyperlipemia, hypercholesterolemia, or atherosclerosis, or for regulating or reducing blood lipid, or for regulating or reducing cholesterol, or for adjunctive treatment of cardiovascular and cerebrovascular diseases caused by hyperlipidemia and atherosclerosis.

9. Use of the compound or a pharmaceutically acceptable salt thereof of claim 1 or the pharmaceutical composition of claim 2 or 3 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 6 in the manufacture of a medicament for eliminating dampness to expel phlegm, activating blood circulation to dissolve accumulated stasis of blood, or invigorating spleen to promote digestion.

10. A method for inhibiting HMG-CoA reductase in vitro, comprising a step of administering an effective amount of the compound or a pharmaceutically acceptable salt thereof of claim 1 or the pharmaceutical composition of claim 2 or 3 or the organic solvent extract of *Monascus*-fermented rice or the column chromatography fraction thereof of claim 6.