Claims

1. A compound for activating AMP-activated protein kinase (AMPK), characterized in that the compound is adenine and/or a pharmaceutically acceptable salt thereof.

2. The compound of claim 1, characterized in that the compound treats a disease or a condition susceptible to amelioration by AMPK activators, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

3. The compound of claim 1, characterized in that the compound reduces pro-inflammatory cytokine secretion and COX-2 expression in a cell and treats an inflammatory condition or disease, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

4. The compound of claim 1, characterized in that the compound increases glucose uptake into a cell, and prevents or treats a condition selected from the group consisting of pre-diabetes, type 2 diabetes, metabolic syndrome, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

5. The compound of claim 1, characterized in that the compound decreases plasma triglyceride in a mammal and decreases body weight, and prevents or treats a condition of obesity, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to the mammal in need of such treatment.

6. The compound of claim 1, characterized in that the compound inhibits Aβ accumulation in a cell, and prevents or treats Alzheimer's disease, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

7. The compound of claim 1, characterized in that the compound enhances autophagy activity in a cell and treats a disease or a condition susceptible to

amelioration by autophagy, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

8. The compound of claim 1, characterized in that the compound suppresses fibroblast proliferation and prevents scar formation during wound healing, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

9. The compound of claim 1, characterized in that the compound enhances wound healing, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

10. The compound of claim 1, characterized in that the compound inhibits ROS production in a cell, and protects and treats cells from ROS injury in a mammal, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to the mammal in need of such treatment.

11. The compound of claim 1, characterized in that the compound inhibits cancer cell proliferation, and prevents or treats cancer, wherein the adenine and/or the pharmaceutically acceptable salt thereof is administrated to a mammal in need of such treatment.

12. A use of the compound of claim 1 for the manufacture of a medicament for treating a disease or a condition susceptible to amelioration by AMPK activators.

13. A use of the compound of claim 1 for the manufacture of a medicament for treating an inflammatory condition or disease.

14. A use of the compound of claim 1 for the manufacture of a medicament for preventing or treating a condition selected from the group consisting of pre-diabetes, type 2 diabetes, metabolic syndrome and a combination thereof.

15. A use of the compound of claim 1 for the manufacture of a medicament for preventing or treating obesity.

16. A use of the compound of claim 1 for the manufacture of a medicament for preventing or treating Alzheimer's disease.

17. A use of the compound of claim 1 for the manufacture of a medicament for

treating a disease or a condition susceptible to amelioration by autophagy.

18. A use of the compound of claim 1 for the manufacture of a medicament for preventing scar formation during wound healing.

19. A use of the compound of claim 1 for the manufacture of a medicament for enhancing wound healing.

20. A use of the compound of claim 1 for the manufacture of a medicament for protecting and treating cells from ROS injury in a mammal.

21. A use of the compound of claim 1 for the manufacture of a medicament for preventing or treating cancer.

Claims

1. A compound for activating AMP-activated protein kinase (AMPK), characterized in that the compound is adenine and/or a pharmaceutically acceptable salt thereof.

2. The compound of claim 1, characterized in that the compound reduces pro-inflammatory cytokine secretion and COX-2 expression in a cell.

3. The compound of claim 1, characterized in that the compound increases glucose uptake into a cell.

4. The compound of claim 1, characterized in that the compound decreases plasma triglyceride in a mammal and decreases body weight.

5. The compound of claim 1, characterized in that the compound inhibits Aβ accumulation in a cell.

6. The compound of claim 1, characterized in that the compound enhances autophagy activity in a cell.

7. The compound of claim 1, characterized in that the compound suppresses fibroblast proliferation.

8. The compound of claim 1, characterized in that the compound inhibits ROS production in a cell.

9. The compound of claim 1, characterized in that the compound inhibits cancer cell proliferation.

10. A use of the compound of claim 1 for the manufacture of a medicament for treating a disease or a condition susceptible to amelioration by AMPK activators.

11. A use of the compound of claim 1 for the manufacture of a medicament for treating an inflammatory condition or disease.

12. A use of the compound of claim 1 for the manufacture of a medicament for preventing or treating a condition selected from the group consisting of pre-diabetes, type 2 diabetes, metabolic syndrome and a combination thereof.

13. A use of the compound of claim 1 for the manufacture of a medicament for

preventing or treating obesity.

14. A use of the compound of claim 1 for the manufacture of a medicament for preventing or treating Alzheimer's disease.

15. A use of the compound of claim 1 for the manufacture of a medicament for treating a disease or a condition susceptible to amelioration by autophagy.

16. A use of the compound of claim 1 for the manufacture of a medicament for preventing scar formation during wound healing.

17. A use of the compound of claim 1 for the manufacture of a medicament for enhancing wound healing.

18. A use of the compound of claim 1 for the manufacture of a medicament for protecting and treating cells from ROS injury in a mammal.

19. A use of the compound of claim 1 for the manufacture of a medicament for preventing or treating cancer.

20. The use of any of claims 10 to 19, wherein said medicament is administered to a mammal in need of treatment or prevention for the disease or the condition.