

Claims

- [Claim 1] A pharmaceutical composition for preventing or treating cancer comprising: (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof;
(2) 2-deoxy-D-glucose; and
(3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof.
- [Claim 2] The pharmaceutical composition of claim 1, wherein the composition comprises a biguanide-based compound or a pharmaceutically acceptable salt thereof, 2-deoxy-D-glucose, and inositol hexaphosphate or a pharmaceutically acceptable salt thereof.
- [Claim 3] The pharmaceutical composition of claim 1, wherein the composition comprises a biguanide-based compound or a pharmaceutically acceptable salt thereof, 2-deoxy-D-glucose, and inositol.
- [Claim 4] The pharmaceutical composition of claim 1, wherein the composition comprises a biguanide-based compound or a pharmaceutically acceptable salt thereof, 2-deoxy-D-glucose, inositol hexaphosphate or a pharmaceutically acceptable salt thereof, and inositol.
- [Claim 5] The pharmaceutical composition of any one of claims 1 to 4, wherein the biguanide-based compound is metformin or phenformin.
- [Claim 6] The pharmaceutical composition of any one of claims 1 to 4, wherein an isomer of the inositol compound is at least one selected from the group consisting of D-chiro-inositol, L-chiro-inositol, myo-inositol, and scyllo-inositol.
- [Claim 7] The pharmaceutical composition of claim 2, wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof:
2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof is in a range of 1: 0.2: 0.5 to 1: 5: 20.
- [Claim 8] The pharmaceutical composition of claim 2, wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof:
2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof is in a range of 1: 1: 1 to 1: 50: 200.
- [Claim 9] The pharmaceutical composition of claim 3, wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof:
2-deoxy-D-glucose: inositol is in a range of 1: 0.2: 0.5 to 1: 5: 20.
- [Claim 10] The pharmaceutical composition of claim 3, wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof:

- 2-deoxy-D-glucose: inositol is in a range of 1: 1: 1 to 1: 50: 200.
- [Claim 11] The pharmaceutical composition of claim 4, wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof:
2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 0.2: 0.5: 0.5 to 1: 5: 20: 20.
- [Claim 12] The pharmaceutical composition of claim 4, wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof:
2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 1: 1: 1 to 1: 50: 200: 200.
- [Claim 13] The pharmaceutical composition of claim 1, wherein the cancer is at least one selected from the group consisting of liver cancer, lung cancer, stomach cancer, pancreatic cancer, colon cancer, cervical cancer, breast cancer, prostate cancer, ovarian cancer, brain cancer, osteosarcoma, and bladder cancer.
- [Claim 14] A food composition for preventing or improving cancer comprising: (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof; (2) 2-deoxy-D-glucose; and (3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof.
- [Claim 15] A method for treating cancer comprising administering a therapeutically effective amount of (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof; (2) 2-deoxy-D-glucose; and (3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof to a subject in need of treatment thereof.
- [Claim 16] The method of claim 15, wherein the biguanide-based compound is metformin or phenformin.
- [Claim 17] The method of claim 15, wherein an isomer of the inositol compound is at least one selected from the group consisting of D-chiro-inositol, L-chiro-inositol, myo-inositol, and scyllo-inositol.
- [Claim 18] The method of claim 15, wherein the cancer is at least one selected from the group consisting of liver cancer, lung cancer, stomach cancer, pancreatic cancer, colon cancer, cervical cancer, breast cancer, prostate cancer, ovarian cancer, brain cancer, osteosarcoma, and bladder cancer.
- [Claim 19] A composition for use in the treatment of cancer comprising: (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof;

(2) 2-deoxy-D-glucose; and
(3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof.

[Claim 20]

A use of composition comprising (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof;

(2) 2-deoxy-D-glucose; and
(3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof for the manufacture of a medicine for treating cancer.