【CLAIMS】

【Claim 1】 A food composition for use in preventing or ameliorating degenerative arthritis, the food composition comprising a steamed ginger extract, 1-dehydro-6-gingerdione isolated therefrom, or a sitologically acceptable salt thereof as an active ingredient.

【Claim 2】 The food composition according to claim 1, wherein the food composition is a functional food composition.

【Claim 3】 The food composition according to claim 1, wherein the steamed ginger extract is obtained by extraction using a solvent selected from the group consisting of water, C_1-C_4 lower alcohol, n-hexane, ethyl acetate, acetone, acetonitrile, n-butylacetate, 1,3-butylene glycol, methylene chloride and a mixture thereof.

【Claim 4】 The food composition according to claim 1, wherein the steamed ginger extract comprises at least one selected from the group consisting of 1-dehydro-6-gingerdione, 6-gingerol, 8-gingerol, 10-gingerol, 6-shogaol, 6-paradol, 8-paradol, 1-dehydro-8-gingerdione, a sitologically acceptable salt thereof, and a pharmaceutically acceptable salt thereof.

【Claim 5】 The food composition according to claim 4, wherein the steamed ginger extract is present in an amount of 0.001% to 10% by weight based on a dry weight of the steamed ginger extract.

【Claim 6】 The food composition according to claim 1, wherein the composition is capable of reducing expression of at least one selected from the group consisting of IL-1β, TNF-α, IFN-γ, and prostaglandin E_2 (PGE_2).

【Claim 7】 The food composition according to claim 1, wherein the composition has an activity of restoring cartilage tissue, creating cartilage, or inhibiting cartilage decomposition.

【Claim 8】 The food composition according to claim 1, wherein the composition is capable of reducing expression of I-κB or nuclear factor (NF)-κB protein.

【Claim 9】 A pharmaceutical composition for use in preventing or treating degenerative arthritis, wherein the pharmaceutical composition comprising a steamed ginger extract, 1-dehydro-6-gingerdione isolated therefrom, or a

pharmaceutically acceptable salt thereof as an active ingredient.

【Claim 10】 The pharmaceutical composition according to claim 9, wherein the steamed ginger extract comprises at least one selected from the group consisting of 1-dehydro-6-gingerdione, 6-gingerol, 8-gingerol, 10-gingerol, 6-shogaol, 6-paradol, 8-paradol, 1-dehydro-8-gingerdione, a sitologically acceptable salt thereof, and a pharmaceutically acceptable salt thereof.

【Claim 11】 A method for preparing a composition for preventing, ameliorating, or treating degenerative arthritis comprising a steamed ginger extract, the method comprising:

(a) washing ginger and steaming the ginger at 85 to 105°C for 1 to 3 hours;

(b) drying the steamed ginger at 40 to 60°C for 30 to 50 hours;

(c) extracting the dried steamed ginger in a solvent at 75 to 95°C for 10 to 20 hours;

(d) filtering the extracted steamed ginger, followed by concentration under reduced pressure at a temperature of 10 to 65°C; and

(e) filtering the steamed ginger extract to prepare a steamed ginger extract powder.

【Claim 12】 Use of a composition in the manufacture of a medicament for treating or ameliorating degenerative arthritis, wherein the composition comprising a steamed ginger extract, 1-dehydro-6-gingerdione isolated therefrom, or a pharmaceutically or sitologically acceptable salt thereof is to be administered to a subject in need thereof.

【Claim 13】 Use of a composition comprising a steamed ginger extract, 1-dehydro-6-gingerdione isolated therefrom, or a pharmaceutically or sitologically acceptable salt thereof in the manufacture of a medicament for prevention, amelioration or treatment of degenerative arthritis.

【Claim 14】 Use of a composition comprising a steamed ginger extract, 1-dehydro-6-gingerdione isolated therefrom, or a pharmaceutically or sitologically acceptable salt thereof for preparation for drugs for preventing, ameliorating or treating degenerative arthritis.

【Claim 15】 The use according to claim 13, wherein the composition is a functional food composition.

【Claim 16】 The use according to claim 13, wherein the steamed ginger extract is obtained by extraction using a solvent selected from the group consisting of water, C_1-C_4 lower alcohol, n-hexane, ethyl acetate, acetone, acetonitrile, n-butylacetate, 1,3-butylene glycol, methylene chloride and a mixture thereof.

【Claim 17】 The use according to claim 13, wherein the steamed ginger extract comprises at least one selected from the group consisting of 1-dehydro-6-gingerdione, 6-gingerol, 8-gingerol, 10-gingerol, 6-shogaol, 6-paradol, 8-paradol, 1-dehydro-8-gingerdione, a sitologically acceptable salt thereof, and a pharmaceutically acceptable salt thereof.

【Claim 18】 The use according to claim 17, wherein the steamed ginger extract is present in an amount of 0.001% to 10% by weight based on a dry weight of the steamed ginger extract.

【Claim 19】 The use according to claim 13, wherein the composition is capable of reducing expression of at least one selected from the group consisting of IL-1β, TNF-α, IFN-γ, and prostaglandin E_2 (PGE_2).

【Claim 20】 The use according to claim 13, wherein the composition has an activity of restoring cartilage tissue, creating cartilage, or inhibiting cartilage decomposition.

【Claim 21】 The use according to claim 13, wherein the composition is capable of reducing expression of I-κB or nuclear factor (NF)-κB protein.

【Claim 22】 A food composition for use in therapy, the food composition comprising a steamed ginger extract, 1-dehydro-6-gingerdione isolated therefrom, or a sitologically acceptable salt thereof as an active ingredient.