CLAIMS

[Claim 1]

Use of a composition comprising an iron ionophore for animal cell culture.

[Claim 2]

The use according to claim 1,

wherein the composition is for improving the growth and/or promoting the differentiation of animal cells; and

optionally wherein the composition has a function of improving the growth of animal cells and/or a function of promoting the differentiation of animal cells.

[Claim 3]

The use according to claim 1 or 2,

wherein the composition is a medium or a medium supplement; and

optionally wherein, when the composition is a medium, the medium is a basal medium, a fed-batch medium, or a perfusion medium.

[Claim 4]

The use according to claim 1 or 2, wherein the iron ionophore is at least one component selected from the group consisting of hinokitiol, α-thujaplicin, and γ-thujaplicin.

[Claim 5]

The use according to claim 1 or 2,

wherein the composition further comprises iron; and

optionally wherein the iron is an iron salt.

[Claim 6]

The use according to claim 1 or 2,

wherein the animal is a mammal, an animal for meat production, a bird, a fish, a crustacean, a cow, a pig, a chicken, or a human;

optionally wherein the cell is a muscle stem cell, an adipose precursor cell, a kidney-derived cell, or a T cell; and

optionally wherein the composition is substantially free of serum, animal-derived albumin, or transferrin.

[Claim 7]

A method for producing a product, comprising a step of culturing animal cells in the presence of an iron ionophore.

[Claim 8]

The method according to claim 7, wherein the product is cultured meat.

[Claim 9]

A method for culturing animal cells, comprising a step of culturing animal cells in the

presence of an iron ionophore.

[Claim 10]

A method for improving the growth of animal cells, comprising a step of culturing animal cells in the presence of an iron ionophore.

[Claim 11]

A method for promoting the differentiation of animal cells, comprising a step of culturing animal cells in the presence of an iron ionophore.

[Claim 12]

The method according to any one of claims 7 to 11,

wherein the iron ionophore is at least one component selected from the group consisting of hinokitiol, α-thujaplicin, and γ-thujaplicin;

optionally wherein the concentration of the iron ionophore in the medium during culturing is from 1 nM to 100 μM or from 10 nM to 10 μM; and

optionally wherein, when the iron ionophore is hinokitiol, the concentration of hinokitiol in the medium during culturing is from 1 nM to 2.5 μM or from 10 nM to 1 μM.

[Claim 13]

The method according to any one of claims 7 to 11,

wherein the culturing is performed in the presence of iron;

optionally wherein the concentration of iron in the medium during culturing is from 200 nM to 500 μM; and

optionally wherein the iron is an iron salt.

[Claim 14]

The method according to any one of claims 7 to 11,

wherein the animal is a mammal, an animal for meat production, a bird, a fish, a crustacean, a cow, a pig, or a chicken;

optionally wherein the cell is a muscle stem cell, an adipose precursor cell, a kidney-derived cell, or a T cell;

optionally wherein the culturing is performed in a medium substantially free of serum, animal-derived albumin, or transferrin; and

optionally wherein by culturing the animal cells in the presence of the iron ionophore, the growth of the animal cells is improved and/or the differentiation of the animal cells is promoted.

[Claim 15]

The method according to any one of claims 7, 9, 10, and 11,

wherein the animal is a human;

optionally wherein the cell is a muscle stem cell, an adipose precursor cell, a kidney-

derived cell, or a T cell;
optionally wherein the culturing is performed in a medium substantially free of serum, animal-derived albumin, or transferrin; and
optionally wherein by culturing the animal cells in the presence of the iron ionophore, the growth of the animal cells is improved and/or the differentiation of the animal cells is promoted.