DESCRIPTION

TITLE OF INVENTION: COMPOSITION CONTAINING DECOMPOSITION PRODUCT OF YEAST CELL WALL, METHOD FOR PRODUCING SAME, AND USE THEREOF

TECHNICAL FIELD

[0001] The present invention relates to a composition containing a decomposition product of a yeast cell wall useful as an emulsifier substitute, an emulsion stabilizer substitute or a milk-like substitute and a method for producing the same, and use thereof.

BACKGROUND ART

[0002] In recent years, in order to avoid allergens derived from milk, from an increase in demand for low-fat or non-fat foods due to diet consciousness and health consciousness, or from an increase in demand for vegan foods, etc., more attention has been paid to foods using a milk-like substitute derived from plants such as oats, soybeans, almonds, etc., in place of a milk raw material. However, these milk-like substitutes derived from plants are usually more expensive than cow's milk and are known to be foods containing allergic substances.

[0003] Similarly, in addition to synthetic emulsifiers, natural product-derived emulsifiers and emulsion stabilizers such as egg-derived lecithin and milk-derived casein are used as surfactants in foods, but these can also be allergens. In addition, these emulsifiers are subject to specifications as food additives under the Food Sanitation Law, and must be labeled as food additives when used in food products. Therefore, emulsifiers for foods in which yeast extract is an effective ingredient have been reported as emulsifiers derived from natural products, which do not require indication of food additives, and which are allergen-free (for example, see Patent Document 1).

PRIOR ART DOCUMENT

PATENT DOCUMENT

[0004] Patent Document 1: JP 2012-231747A

SUMMARY

PROBLEMS TO BE SOLVED BY THE DISCLOSURE

[0005] An object of the present disclosure is to provide a composition useful as an emulsifier substitute, an emulsion stabilizer substitute or a milk-like substitute and a method for producing the same, and use thereof.

MEANS TO SOLVE THE PROBLEMS

[0006] The present inventors have earnestly studied in view of the above-mentioned problems, and found that a composition containing a cell wall lysing enzyme-decomposition product of yeast cell body residue is useful as an emulsifier substitute, an emulsion stabilizer substitute or a milk-like substitute, whereby they have completed the present disclosure.

[0007] Accordingly, the summary of the present disclosure is as follows.

[1] A composition containing a decomposition product of a yeast cell wall which contains a cell wall lysing enzyme-decomposition product of yeast cell body residue.

[2] A composition containing a decomposition product of a yeast cell wall containing a cell wall lysing enzyme-decomposition product of yeast cell body residue, wherein the decomposition product contains 5% by mass or more of lipid based on a dry mass of the decomposition product.

[3] The composition described in [1] or [2], wherein an RNA content of the decomposition product is less than 5% by mass based on a dry mass of the decomposition product.

[4] The composition described in any of [1] to [3], wherein the decomposition product contains an insoluble peptide.

[5] The composition described in any of [1] to [4], wherein the cell wall lysing enzyme is glucanase.

[6] The composition described in any of [1] to [5], wherein the cell wall lysing enzyme is glucanase having β-1,3, β-1,4, and/or β-1,6 activity.

[7] The composition described in any of [1] to [6], wherein the cell wall lysing enzyme is glucanase derived from Streptomyces.

[8] The composition described in any of [1] to [7], wherein the cell wall lysing enzyme is glucanase having no protease activity.

[9] The composition described in any of [1] to [8], wherein the lipid contains at least yeast-derived phospholipid.

[10] The composition described in any of [1] to [9], wherein the decomposition product contains 5% by mass or more and 15% by mass or less of lipid based on a dry mass of the decomposition product.

[11] The composition described in any of [1] to [10], wherein the decomposition

product is a material obtained by the method containing the following:

(a) treating a yeast cell body residue with glucanase at 40 to 60°C for 1 to 24 hours, and

(b) recovering the treated product obtained in (a).

[12] The composition described in any of [1] to [11], wherein the yeast cell body residue is a residue of the yeast cell body after extraction of yeast with hot water.

[13] A method for producing a composition containing a decomposition product of a yeast cell wall, which contains

(A) treating a yeast cell body residue with a cell wall lysing enzyme, and

(B) recovering the treated product obtained in (A).

[14] An emulsifier for food or an emulsion stabilizer for food which contains the composition described in any of [1] to [12].

[15] A food composition which contains the composition described in any of [1] to [12], oils and fats and carbohydrates.

[16] Use of the composition described in any of [1] to [12] as an emulsifier for food or an emulsion stabilizer for food.

[17] Use of the composition described in any of [1] to [12] as a milk-like substitute.

[0007a] In one aspect, there is provided a composition containing a decomposition product of a yeast cell wall which comprises a cell wall lysing enzyme-decomposition product of yeast cell body residue. In another aspect, there is provided a composition containing a decomposition product of a yeast cell wall comprising a cell wall lysing enzyme-decomposition product of yeast cell body residue, wherein the decomposition product contains 5% by mass or more of lipid based on a dry mass of the decomposition product

[0007b] In another aspect, there is provided a method for producing a composition containing a decomposition product of a yeast cell wall, which comprises

(A) treating a yeast cell body residue with a cell wall lysing enzyme, and

(B) recovering the treated product obtained in (A).

[0007c] In another aspect, there is provided an emulsifier for food or an emulsion stabilizer for food which comprises the composition as disclosed herein.

[0007d] In another aspect, there is provided a food composition which comprises the composition as disclosed herein, oils and fats, and carbohydrates.

[0007e] In another aspect, there is provided use of the composition as disclosed herein as an emulsifier for food or an emulsion stabilizer for food.

[0007f] In another aspect, there is provided use of the composition as disclosed herein as a milk-like substitute.

EFFECTS OF THE DISCLOSURE

[0008] According to the present disclosure, it is possible to provide a composition containing a decomposition product of a yeast cell wall useful as an emulsifier substitute, an emulsion stabilizer substitute or a milk-like substitute using a yeast cell body residue which is inexpensive and easily available as a raw material. These compositions are derived from non-animal and non-plant raw materials, do not require indication of food additives, and are free from allergens such as milk, eggs and legumes, so that it can be expected to be used, as an emulsifier or an emulsion stabilizer, or as a milk-like substitute, for various kinds of foods, cosmetics and quasi-drugs, etc.

EMBODIMENTS TO CARRY OUT THE INVENTION

[0009] In one embodiment of the present invention, it is provided a composition containing a cell wall lysing enzyme-decomposition product of yeast cell body residue, and preferably a composition in which the decomposition product contains 5% by mass or more of lipid based on a dry mass of the decomposition product. Also, in another embodiment, it is provided a composition in which the decomposition product contains insoluble peptides, and in yet another embodiment, it is provided a composition in which an RNA content of the decomposition product is less than 5% by mass based on a