CLAIMS

1. A polyphosphoric acid composition containing an extract extracted from yeast, wherein the extract contains polyphosphoric acid, salts of polyphosphoric acid or solvates of polyphosphoric acid.

2. The polyphosphoric acid composition according to claim 1, wherein the yeast are budding yeast.

3. The polyphosphoric acid composition according to claim 1, wherein the extract further contains at least one of cell components of yeast and protein hydrolysates.

4. The polyphosphoric acid composition according to claim 1, wherein the extract further contains at least one of vitamins and minerals.

5. The polyphosphoric acid composition according to claim 1, wherein the polyphosphoric acid, salts of polyphosphoric acid or solvates of polyphosphoric acid contained in the total mass of the polyphosphoric acid composition is 0.01 mass% or more and 70 mass% or less.

6. The polyphosphoric acid composition according to claim 1, wherein the polyphosphoric acid has a degree of polymerization of 20 or more phosphate residues and 300 or less phosphate residues.

7. The polyphosphoric acid composition according to claim 1, wherein the polyphosphoric acid has a shape with a greatest diameter of 10 nm

or more and 1000 nm or less.

8. The polyphosphoric acid composition according to claim 1, wherein the yeast are obtained by co-culturing with a lactic acid bacterium.

9. A cosmetic material containing, as an effective ingredient, an effective amount of the polyphosphoric acid composition according to any one of claims 1 to 8.

10. A hair tonic containing, as an effective ingredient, an effective amount of the polyphosphoric acid composition according to any one of claims 1 to 8.

11. A mouthwash containing, as an effective ingredient, an effective amount of the polyphosphoric acid composition according to any one of claims 1 to 8.

12. A food product containing, as an effective ingredient, an effective amount of the polyphosphoric acid composition according to any one of claims 1 to 8.

13. A food additive containing, as an effective ingredient, an effective amount of the polyphosphoric acid composition according to any one of claims 1 to 8.

14. A supplement containing, as an effective ingredient, an effective amount of the polyphosphoric acid composition according to any one of claims 1 to 8.

15. An intestinal drug containing, as an effective ingredient, an effective amount of the polyphosphoric acid composition according to any one of claims 1 to 8.

16. A method for producing a polyphosphoric acid composition containing any of

polyphosphoric acid, salts of polyphosphoric acid or solvates of polyphosphoric acid,

wherein the method for producing a polyphosphoric acid composition comprises:

a step of obtaining an yeast mass by standing yeast at a temperature of 1°C or more and 10°C or less,

a step of obtaining a yeast broth containing and accumulating polyphosphoric acid by culturing the yeast mass in a broth containing phosphate,

a step of obtaining yeast precipitates by separating the yeast broth by centrifugation,

a step of obtaining a yeast suspension by suspending the yeast precipitates in a cell suspension solvent,

a step of obtaining a yeast extract by heat treatment of the yeast suspension,

a step of obtaining a polyphosphoric acid composition by separating the yeast extract by centrifugation into a polyphosphoric acid composition containing polyphosphoric acid and a fraction of yeast bodies.

17. The production method according to claim 16,

wherein the broth containing phosphate further contains a lactic acid bacterium.

18. The production method according to claim 16,

wherein the step of obtaining a yeast extract is a step of obtaining the polyphosphoric acid and protein hydrolysates by heat treatment at a temperature of 60°C or more and 80°C or less for 20 minutes or more and 40 minutes or less.

19. A polyphosphoric acid-containing yeast obtained by a method for producing polyphosphoric acid-containing yeast, the method comprising a step of obtaining a yeast broth containing and accumulating polyphosphoric acid by culturing an yeast mass in a

broth containing a lactic acid bacterium and phosphate, and a step of obtaining yeast precipitates by separating the yeast broth by centrifugation, and

a step of obtaining a polyphosphoric acid-containing yeast containing any of polyphosphoric acid, salts of polyphosphoric acid or solvates of polyphosphoric acid using the yeast precipitates.

20. A supplement containing the yeast according to claim 19.

CLAIMS

1. A hair tonic containing, as an effective ingredient, an effective amount of a polyphosphoric acid composition,

wherein the polyphosphoric acid composition contains an extract extracted from yeast fungi,

wherein the extract contains polyphosphoric acid, salts of polyphosphoric acid or solvates of polyphosphoric acid.

2. The hair tonic according to claim 1,

wherein the yeast fungi are budding yeast.

3. The hair tonic according to claim 1,

wherein the extract further contains at least one of cell components of yeast fungi and protein hydrolysates.

4. The hair tonic according to claim 1,

wherein the extract further contains at least one of vitamins and minerals.

5. The hair tonic according to claim 1,

wherein the polyphosphoric acid, salts of polyphosphoric acid or solvates of polyphosphoric acid contained in the total mass of the polyphosphoric acid composition is 0.01 mass% or more and 70 mass% or less.

6. The hair tonic according to claim 1,

wherein the polyphosphoric acid has a degree of polymerization of 20 or more and 300 or less.

7. The hair tonic according to claim 1,

wherein the polyphosphoric acid has a shape with a greatest diameter of 10 nm or more and 1000 nm or less.

8. The hair tonic according to claim 1,

wherein the yeast fungi are obtained by co-culturing with a lactic acid bacterium.