Non-Patent Literature 2: Sanders ME & Huis in't Veld J: Antonie van Leeuwenhoek, 1999, vol. 76, pp. 293-315

Non-Patent Literature 3: IMAI Tatsuya: Tooth-Brushing with Lactic Acid Bacteria for Curing Periodontitis Within 3 Days, MAKINO Publishing Company, 2000

SUMMARY OF INVENTION

TECHNICAL PROBLEM

[0007]

Although lactic acid bacteria or bifidobacteria have a health maintaining function by themselves as mentioned above, administration of other components along with lactic acid bacteria or bifidobacteria can be expected to enhance the function of lactic acid bacteria or bifidobacteria. However, methods of combining lactic acid bacteria or bifidobacteria with other components to enhance the effects of lactic acid bacteria or bifidobacteria are yet to be enough investigated. Moreover, the effects of lactic acid bacteria or bifidobacteria in treating/preventing dry eye are yet to be enough investigated. The present invention aims to provide compositions containing lactic acid bacteria or bifidobacteria and components that enhance the functions of lactic acid bacteria or bifidobacteria.

SOLUTION TO PROBLEM

[0008]

The present inventors have found that at least one component selected from the group consisting of lutein, fish oil, lactoferrin, vitamins, γ-aminobutyric acid, and zinc enhances the function of lactic acid bacteria or bifidobacteria. The inventors have thus completed the present invention.

[0009]

Specifically, the present invention relates to the use of at least one component selected from the group consisting of lutein, fish oil, lactoferrin, vitamins, γ-aminobutyric acid, and zinc; and a strain of lactic acid bacteria or bifidobacteria, in the manufacture of a dietary supplement or a functional food for treating or preventing dry eye. Also described herein is a composition, containing at least one component selected from

the group consisting of lutein, fish oil, lactoferrin, vitamins, γ-aminobutyric acid, and zinc, and a strain of lactic acid bacteria or bifidobacteria.

[0010]

The composition preferably contains lutein, fish oil, and the strain of lactic acid bacteria or bifidobacteria.

[0011]

The composition preferably further contains lactoferrin.

[0012]

The composition is preferably a pharmaceutical composition.

[0013]

The composition is preferably a food composition.

[0014]

The composition is preferably for treating or preventing dry eye.

[0015]

The present disclosure also relates to a composition for treating or preventing dry eye, containing a microorganism of the genus *Streptococcus*, *Enterococcus*, *Lactobacillus*, or *Bifidobacterium*.

ADVANTAGEOUS EFFECTS OF INVENTION

[0016]

Since the composition of the present invention contains at least one component selected from the group consisting of lutein, fish oil, lactoferrin, vitamins, γ-aminobutyric acid, and zinc, and a strain of lactic acid bacteria or bifidobacteria, the composition is effective in enhancing the function of lactic acid bacteria or bifidobacteria.

BRIEF DESCRIPTION OF DRAWINGS

[0017]

Fig. 1 shows the results of Test Example 1.

Fig. 2 shows the results of Test Example 2.

CLAIMS

Claim 1.

Use of at least one component selected from the group consisting of lutein, fish oil, lactoferrin, vitamins, γ-aminobutyric acid, and zinc; and a strain of lactic acid bacteria or bifidobacteria, in the manufacture of a dietary supplement or a functional food for treating or preventing dry eye.

Claim 2.

The use according to claim 1, comprising lutein, fish oil, and the strain of lactic acid bacteria or bifidobacteria.

Claim 3.

The use according to claim 2, further comprising lactoferrin.