[0015]

It is a problem underlying the present invention to provide a food or beverage composition useful for hydration, providing enhanced water absorption.

Means for Solving the Problem

[0016]

As a result of intensive studies to achieve the above problem, the present inventors have discovered that a food or beverage composition containing a protein hydrolysate such as whey peptides and/or a specific amino acid together with a sugar and an electrolyte, and having an osmotic pressure of about 40-250 mOsm/kg H_2O, significantly enhances the water absorption through the bowels, and thus have completed the present invention. Thus, in one aspect, the present invention refers to a food or beverage composition, comprising 0.5 to 3.0 wt% of sugar, electrolytes comprising 10 to 30 mM sodium; and at least one selected from protein hydrolysate and amino acid, and having an osmotic pressure of 40 to 250 mOsm/kg H_2O, wherein the sugar is glucose or trehalose, and wherein the protein hydrolysate is of 0.25 to 7.5 wt% and is whey peptides or casein peptides, and wherein the amino acid is of 20 to 30 mM and is lysine or alanine. In still another aspect, the present invention refers to a premix composition for preparing the food or beverage composition of the present invention, comprising a sugar, electrolytes comprising sodium, and at least one selected from protein hydrolysate and amino acid, wherein the sugar is glucose or trehalose, and wherein the protein hydrolysate is whey peptides or casein peptides, and the amino acid is lysine or alanine, and wherein the premix composition comprises 0.06 g to 12 g of the sugar and 0.1 to 12 mmol sodium per gram of said at least one selected from protein hydrolysate and amino acid.

[0017]

Specifically, the present ~~invention~~disclosure encompasses the following [1] to [16].

[0018]

[1] A food or beverage composition, comprising a protein hydrolysate and/or an amino acid, a sugar, and an electrolyte, and has an osmotic pressure of 40 to 250 mOsm/kg H_2O.

[0019]

[2] The food or beverage composition according to [1] above, which comprises 0.25 to 7.5 wt% of the protein hydrolysate.

[0020]

[3] The food or beverage composition according to [1] or [2] above, which comprises 0.5 to 3.0 wt% of the sugar and 10 to 30 mM sodium.

[0021]

[4] The food or beverage composition according to [1] to [3] above, wherein the osmotic pressure ranges from 50 to 200 mOsm/kg H_2O.

[0022]

[5] The food or beverage composition according to [4] above, wherein the protein hydrolysate is at least one selected from the group consisting of whey peptides, casein peptides, and soy peptides.

CLAIMS

1. A food or beverage composition, comprising 0.5 to 3.0 wt% of sugar, electrolytes comprising 10 to 30 mM sodium; and at least one selected from protein hydrolysate and amino acid, and having an osmotic pressure of 40 to 250 mOsm/kg H_2O, wherein the sugar is glucose or trehalose, and wherein the protein hydrolysate is of 0.25 to 7.5 wt% and is whey peptides or casein peptides, and wherein the amino acid is of 20 to 30 mM and is lysine or alanine.

2. The food or beverage composition according to claim 1, which comprises 1.0 to 3.0 wt% of the protein hydrolysate.

3. The food or beverage composition according to claim 1 or 2, wherein the osmotic pressure is from 50 to 200 mOsm/kg H_2O.

4. The food or beverage composition according to any one of claims 1 to 3, wherein said at least one selected from protein hydrolysate and amino acid is protein hydrolysate and the protein hydrolysate is whey peptides.

5. The food or beverage composition according to any one of claims 1 to 3, wherein the amino acid is alanine.

6. The food or beverage composition according to any one of claims 1 to 5, wherein the sugar is trehalose.

7. The food or beverage composition according to any one of claims 1 to 6, wherein the electrolyte comprises sodium, potassium, calcium, and magnesium.

8. The food or beverage composition according to any one of claims 1 to 7, wherein the composition further comprises citric acid.

9. The food or beverage composition according to any one of claims 1-4, wherein the composition comprises 1.0 to 3.0 wt% of whey peptides; 0.5 to 3.0 wt% of

trehalose; potassium, calcium, magnesium and 10 to 30 mM sodium; and citric acid.

10. The food or beverage composition according to any one of claims 1-4, wherein the composition comprises 0.25 to 7.5 wt% of whey peptides; 0.5 to 3.0 wt% of glucose; potassium, calcium, magnesium; and 20 to 30 mM sodium; and citric acid.

11. The food or beverage composition according to any one of claims 1 to 10, which is for use in hydration.

12. A premix composition for preparing the food or beverage composition of any one of claims 1 to 11, comprising a sugar, electrolytes comprising sodium, and at least one selected from protein hydrolysate and amino acid, wherein the sugar is glucose or trehalose, and wherein the protein hydrolysate is whey peptides or casein peptides, and the amino acid is lysine or alanine, and wherein the premix composition comprises 0.06 g to 12 g of the sugar and 0.1 to 12 mmol sodium per gram of said at least one selected from protein hydrolysate and amino acid.

13. The premix composition according to claim 12, wherein said at least one selected from protein hydrolysate and amino acid is protein hydrolysate and the protein hydrolysate is whey peptides.

14. The premix composition according to claim 12 or 13, wherein the electrolyte comprises sodium, potassium, calcium, and magnesium.

15. The premix composition according to any one of claims 12 to 14, wherein the sugar is trehalose.

16. The premix composition according any one of claims 12 to 15, wherein the composition further comprises citric acid.

CLAIMS

1. A food or beverage composition, comprising a protein hydrolysate and/or an amino acid, a sugar, and an electrolyte, and has an osmotic pressure of 40 to 250 mOsm/kg H_2O.

2. The food or beverage composition according to claim 1, which comprises 0.25 to 7.5 wt% of the protein hydrolysate.

3. The food or beverage composition according to claim 1 or 2, which comprises 0.5 to 3.0 wt% of the sugar and 10 to 30 mM sodium.

4. The food or beverage composition according to any one of claims 1 to 3, wherein the osmotic pressure is from 50 to 200 mOsm/kg H_2O.

5. The food or beverage composition according to any one of claims 1 to 4, wherein the protein hydrolysate is at least one selected from the group consisting of whey peptides, casein peptides, and soy peptides.

6. The food or beverage composition according to any one of claims 1 to 5, wherein the amino acid is at least one selected from the group consisting of lysine, arginine, glycine, alanine, glutamic acid, leucine, isoleucine, and valine.

7. The food or beverage composition according to any one of claims 1 to 6, wherein the sugar comprises glucose, and/or a sugar containing glucose as a constituent monosaccharide.

8. The food or beverage composition according to any one of claims 1 to 7, wherein the electrolyte comprises sodium, potassium, calcium, and magnesium.

9. The food or beverage composition according to any one of claims 1 to 8, wherein the composition further comprises citric acid.

10. The food or beverage composition according to any one of claims 1 to 9, which is for use in hydration.

11. A premix composition for preparing the food or beverage composition of any one of claims 1 to 10, comprising a protein hydrolysate and/or an amino acid, a sugar, and an electrolyte.

12. The premix composition according to claim 11, wherein the composition comprises 0.06 g to 12 g of the sugar and 0.1 to 12 mmol sodium per gram of the protein hydrolysate and/or the amino acid.

13. The premix composition according to claim 11 or 12, wherein the protein hydrolysate is at least one selected from the group consisting of whey peptides, casein peptides, and soy peptides.

14. The premix composition according to any one of claims 11 to 13, wherein the electrolyte comprises sodium, potassium, calcium, and magnesium.

15. The premix composition according to any one of claims 11 to 14, wherein the sugar comprises glucose and/or a sugar containing glucose as a constituent monosaccharide.

16. The premix composition according any one of claims 11 to 15, wherein the composition further comprises citric acid.