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BRIEF SUMMARY

[0007] A nutritional composition comprising at least one human milk oligosaccharide selected from 6'-sialyllactose, lacto-N-neotetraose, lacto-N-tetraose, disialylated lacto-N-tetraose, 3'-fucosyllactose, and 3'-sialyllactose. The nutritional composition is used in a method of reducing stress in an individual in need thereof.

[0007a] Also provided is the use of a nutritional composition in the manufacture of a medicament for treating stress in an individual in need thereof, the nutritional composition comprising at least one human milk oligosaccharide selected from 6'-sialyllactose, lacto-N-neotetraose, lacto-N-tetraose, disialylated lacto-N-tetraose, 3'-fucosyllactose, and 3'-sialyllactose.

[0007b] Also provided is the use of a nutritional composition in the manufacture of a medicament for treating stress in an individual in need thereof by increasing the production of at least one of γ-aminobutyric acid and agmatine, the nutritional composition comprising at least one human milk oligosaccharide selected from 6'-sialyllactose, lacto-N-neotetraose, lacto-N-tetraose, disialylated lacto-N-tetraose, 3'-fucosyllactose, and 3'-sialyllactose.

[0007c] Also provided is a use of a nutritional composition in the manufacture of a medicament for treating stress related to at least one of excess anxiety and hypersensitivity to painful stimuli in an individual in need thereof, the nutritional composition comprising at least one human milk oligosaccharide selected from 6'-sialyllactose, lacto-N-neotetraose, lacto-N-tetraose, disialylated lacto-N-tetraose, 3'-fucosyllactose, and 3'-sialyllactose.

DETAILED DESCRIPTION

Definitions

[0008] The terms "retort packaging" and "retort sterilizing" are used interchangeably herein, and unless otherwise specified, refer to the common practice of filling a container, most typically a metal can or other similar package, with a nutritional liquid and then subjecting the liquid-filled package to the necessary heat sterilization step, to form a sterilized, retort packaged, nutritional liquid product.

[0009] The term "aseptic packaging" as used herein, unless otherwise specified, refers to the manufacture of a packaged product without reliance upon the above-described retort packaging step, wherein the nutritional liquid and package are sterilized separately prior to filling, and then are combined under sterilized or aseptic processing conditions to form a sterilized, aseptically packaged, nutritional liquid product.

[0010] The terms "fat" and "oil" as used herein, unless otherwise specified, are used interchangeably to refer to lipid materials derived or processed from plants or animals. These

What is claimed is:

1. Use of a nutritional composition in the manufacture of a medicament for treating stress in an individual in need thereof by increasing the production of at least one of γ-aminobutyric acid and agmatine, the nutritional composition comprising at least one human milk oligosaccharide selected from 6'-sialyllactose, lacto-N-neotetraose, lacto-N-tetraose, disialylated lacto-N-tetraose, 3'-fucosyllactose, and 3'-sialyllactose.

2. The use of claim 1, wherein the at least one human milk oligosaccharide is selected from 6'-sialyllactose and lacto-N-neotetraose.

3. The use of any one of the preceding claims, wherein the at least one human milk oligosaccharide is lacto-N-neotetraose.

4. The use of any one of claims 1-2, wherein the at least one human milk oligosaccharide is 6'-sialyllactose.

5. The use of any one of the preceding claims, wherein the nutritional composition is a liquid and comprises from about 0.001 mg/mL to about 20 mg/mL of the human milk oligosaccharide.

6. The use of claim 5, wherein the nutritional composition is a liquid and comprises from about 0.001 mg/mL to about 10 mg/mL of the human milk oligosaccharide.

7. The use of claim 6, wherein the nutritional composition is a liquid and comprises from about 0.001 mg/mL to about 5 mg/mL of the human milk oligosaccharide.

8. The use of any one of claims 1-4, wherein the nutritional composition is a powder and comprises from about 0.0005% to about 5% of the human milk oligosaccharide by weight of the powder.

9. The use of claim 8, wherein the nutritional composition is a powder and comprises from about 0.01% to about 1% of the human milk oligosaccharide by weight of the powder.

10. The use of any one of the preceding claims, wherein the nutritional composition further comprises at least one of fat, protein, or carbohydrate.

11. The use of any one of the preceding claims, wherein the nutritional composition further comprises protein.

12. The use of any one of the preceding claims, wherein the nutritional composition is an infant formula.

13. The use of any one claims 1-4 and 10-12, wherein the nutritional composition is a nutritional bar, liquid, or powder.

14. The use of any one of the preceding claims, wherein stress is reduced by improving at least one of mood, relaxation, or calmness in the individual.

15. The use of claim 1, wherein the nutritional composition is an adjunctive therapy.

16. Use of a nutritional composition in the manufacture of a medicament for treating stress related to at least one of excess anxiety and hypersensitivity to painful stimuli in an individual in need thereof, the nutritional composition comprising at least one human milk oligosaccharide selected from 6'-sialyllactose, lacto-N-neotetraose, lacto-N-tetraose, disialylated lacto-N-tetraose, 3'-fucosyllactose, and 3'-sialyllactose.

17. The use of claim 16, wherein the at least one human milk oligosaccharide is selected from 6'-sialyllactose and lacto-N-neotetraose.