CLAIMS

1. A muscle synthesis promoter for use in a subject in need of rapid absorption of protein, comprising a milk protein mixture containing casein protein and whey protein as an effective ingredient, wherein the muscle synthesis promoter has a protein content ratio of casein protein to whey protein (casein protein/whey protein) of 2 to 20

wherein the milk protein mixture is ingested so that the total amount of protein for one meal is 0.13 to 0.7 g/kg body weight.

2. The muscle synthesis promoter according to Claim 1, comprising one unit packaging form for one meal, wherein the unit packaging form contains the milk protein mixture in which the total amount of protein is adjusted to 8 to 40 g as the intake amount for one meal.

3. The muscle synthesis promoter according to any one of Claims 1 to 2, wherein the subject in need of rapid absorption of protein is a subject who performs exercise.

4. The muscle synthesis promoter according to Claim 3, wherein the exercise is muscle training.

5. The muscle synthesis promoter according to any one of Claims 1 to 4, wherein the muscle synthesis promoter is in a liquid form.

6. A food and drink product packed in a container provided with muscle synthesis promoting activity due to rapid protein absorption, produced by blending the muscle synthesis promoters according to any one of Claims 1 to 5 and heat sterilizing, the product being in a unit packaging form for one meal, wherein the milk protein mixture is adjusted to contain the total amount of protein at 8 to 40 g as the intake amount for one meal.

7. A milk beverage packed in a container provided with muscle synthesis promoting activity due to rapid protein absorption, produced by blending and heat sterilizing wherein a milk protein mixture

containing casein protein and whey protein at the protein content ratio of the casein protein to the whey protein (casein protein/whey protein) of 2 to 20 is blended with one kind of material or more selected from the group consisting of raw milk, pasteurized milk, concentrated milk, powdered milk and reconstituted milk, wherein the milk protein mixture is adjusted to make the total amount of protein at 8 g/200 ml or more and the milkfat at 8 g/200 ml or less

wherein the milk protein mixture is administered so that the total amount of protein for one meal is 0.13 to 0.7 g/kg body weight.

8. A method for producing a milk beverage packed in a packaging container and provided with muscle synthesis promoting activity due to rapid protein absorption, comprising a step of blending a milk protein mixture containing casein protein and whey protein at the protein content ratio of casein protein to whey protein (casein protein/whey protein) of 2 to 20 with one kind of material or more selected from the group consisting of raw milk, pasteurized milk, concentrated milk, powdered milk and reconstituted milk, and a step of heat sterilization, wherein the milk protein mixture is adjusted to make the total amount of protein at 8 g/200 ml or more and the milkfat at 8 g/200 ml or less

wherein the milk protein mixture is administered so that the total amount of protein for one meal is 0.13 to 0.7 g/kg body weight.

9. A method for promoting muscle synthesis(excluding medical practice toward humans), comprising administering a milk protein mixture containing casein protein and whey protein at a protein content ratio of casein protein to whey protein (casein protein/whey protein) of 2 to 20 to a subject in need of rapid absorption of protein

wherein the milk protein mixture is administered so that the total amount of protein for one meal is 0.13 to 0.7 g/kg body weight.

10. The method for promoting muscle synthesis according to Claim 9, wherein the milk protein mixture is administered so that the total amount of protein for one meal is 8 to 40 g.

11. The method for promoting muscle synthesis according to any

one of Claims 9 to 10, wherein the milk protein mixture is administered to a subject in need of rapid absorption of protein in a warm liquid form.

12. The method for promoting muscle synthesis according to any one of Claims 9 to 11, wherein the subject in need of rapid absorption of protein is a subject who performs exercise.

13. The method for promoting muscle synthesis according to Claim 12, wherein the subject performing exercise is a subject right after performing exercise.

14. The method for promoting muscle synthesis according to any one of Claims 12 or 13, wherein the exercise is muscle training.