CLAIMS

1. A method for culturing lactic acid bacterium, comprising the step of culturing lactic acid bacterium having a metabolic ability of converting arginine into citrulline, to which arginine is added in order to suppress a lowering of pH of the medium

wherein the lactic acid bacterium is one or more members selected from the group consisting of Lactococcus lactis, Lactobacillus brevis and Lactobacillus reuteri,

wherein arginine is added in an amount of 0.5 to 15% by mass to the medium, the conversion of arginine into citrulline is caused by lactic acid fermentation, and

the number of microbial cells per mL of a culture solution of lactic acid bacterium is twice or more the number of microbial cells when cultured in an arginine-free medium.

2. The method for culturing lactic acid bacterium according to claim 1, wherein lactic acid bacterium has a metabolic ability of converting citrulline into ornithine after the conversion of arginine into citrulline.

3. The method for culturing lactic acid bacterium according to claim 1, wherein the lactic acid bacterium is one or more members selected from the group consisting of Lactococcus lactis spp. lactis, Lactococcus lactis spp. cremoris, Lactobacillus reuteri, and Lactobacillus brevis.

4. The method for culturing lactic acid bacterium according to any one of claims 1 to 3, wherein the culture solution is not stirred.