

***Lactobacillus reuteri*, Strain CF48-3A**

**Catalog No. HM-102**

**For research use only. Not for human use.**

**Contributor:**

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**Product Description:**

Bacteria Classification: *Lactobacillaceae*, *Lactobacillus*

Species: *Lactobacillus reuteri*

Strain: CF48-3A

Original Source: *Lactobacillus reuteri* (*L. reuteri*), strain CF48-3A was isolated from the feces of a healthy Finnish child.<sup>1</sup>

Comment: *L. reuteri*, strain CF48-3A is a reference genome for [The Human Microbiome Project](#) (HMP). HMP is an initiative to identify and characterize human microbial flora. The whole genome shotgun sequence of *L. reuteri*, strain CF48-3A has been drafted (GenBank: ACHG00000000).

*L. reuteri* is a Gram-positive, anaerobic, mesophilic, non-motile bacterium that is commonly found in the normal human gastrointestinal tract. *L. reuteri* produces antibiotic compounds which have inhibitory effects on pathogenic microorganisms. It is commonly used as a probiotic to maintain the balance of the gut microbial flora and stimulate the intestinal immune system.<sup>1</sup>

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Lactobacilli MRS Broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

**Packaging/Storage:**

HM-102 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

**Growth Conditions:**

Media:

Lactobacilli MRS broth and/or agar ([ATCC medium 416](#))

Incubation:

Temperature: 35°C to 37°C

Atmosphere: Aerobic or Microaerophilic (CO<sub>2</sub> is not required for growth)

Propagation:

1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.

3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tubes and plate at 37°C for 24 hours.

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH as part of the Human Microbiome Project: *Lactobacillus reuteri*, Strain CF48-3A, HM-102.”

**Biosafety Level: 1**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories](#). 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see [www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm).

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**References:**

1. Jones, S. E. and J. Versalovic. "Probiotic *Lactobacillus reuteri* Biofilms Produce Antimicrobial and Anti-inflammatory Factors." *BMC Microbiol.* 9 (2009): 35. PubMed: 19210794.
2. Kandler, O., Stetter, K. O., and Kohl, R. "*Lactobacillus reuteri* sp. Nov., a New Species of Heterofermentative Lactobacilli." *Zbl. Bakt. Hyg., I. Abt. Orig. C1* (1980): 264-269.

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