

***Bifidobacterium longum*, Strain CMW7750**

**Catalog No. HM-1299**

**For research use only. Not for use in humans.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

**Bacteria Classification:** *Bifidobacteriaceae*, *Bifidobacterium*

**Species:** *Bifidobacterium longum*

**Strain:** CMW7750

**Original Source:** *Bifidobacterium longum* (*B. longum*), strain CMW7750 is a vaginal isolate obtained in 2014 from a pregnant female in St. Louis, Missouri, USA.<sup>1,2</sup>

**Comments:** *B. longum*, strain CMW7750 ([HMP ID 3231](#)) is a reference genome for [The Human Microbiome Project](#) (HMP). HMP is an initiative to identify and characterize human microbial flora. The complete genome of *B. longum*, strain CMW7750 was sequenced at the Genome Institute at [Washington University](#) (GenBank: [LRPQ00000000](#)).

**Note:** HMP material is taxonomically classified by the depositor. Quality control of these materials is only performed to demonstrate that the material distributed by BEI Resources is identical to the deposited material.

*B. longum* is an anaerobic, non-motile, Gram-positive, rod-shaped bacterium commonly found in the normal human intestinal microflora.<sup>3,4</sup> *B. longum* is among the first colonizers of the essentially sterile gastrointestinal tract of newborns and one of the dominant genera of the microbiota of healthy breastfed infants. It is considered to be a beneficial organism for human health and for this reason is widely used in probiotics.<sup>5</sup>

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in Modified Reinforced Clostridial broth supplemented with 10% glycerol.

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

**Packaging/Storage:**

HM-1299 was packaged aseptically in 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:**

Modified Reinforced Clostridial broth or NYC III broth<sup>1</sup> or equivalent

Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

**Incubation:**

Temperature: 37°C

Atmosphere: Anaerobic

**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 tube, slant and/or plate at 37°C for 1 to 2 days.

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Bifidobacterium longum*, Strain CMW7750, HM-1299.”

**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 \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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**References:**

1. Lewis, A., Personal Communication.
2. [HMP ID 3231](#) (*Bifidobacterium longum*, strain CMW7750)
3. Lee, J. H. and D. J. O'Sullivan. "Genomic Insights into Bifidobacteria." *Microbiol. Mol. Biol. Rev.* 74 (2010): 378-416. PubMed: 20805404.
4. Cronin, M., et al. "Progress in Genomics, Metabolism and Biotechnology of Bifidobacteria." *Int. J. Food Microbiol.* 149 (2011): 4-18. PubMed: 21320731.
5. Leahy, S. C., et al. "Getting Better with Bifidobacteria." *J. Appl. Microbiol.* 98 (2005): 1303-1315. PubMed: 15916644.

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