

## **Certificate of Analysis for HM-848**

## Bifidobacterium longum subsp. longum, Strain 2-2B

Catalog No. HM-848

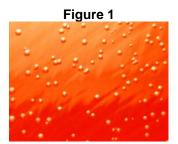
**Product Description:** Bifidobacterium longum (B. longum) subsp. longum, strain 2-2B was isolated from a six-year-old human patient. Note: The strain designation on the vial label for lot 61773990 is incorrect. The correct strain designation is 2-2B.

Lot<sup>1,2</sup>: 61773990 Manufacturing Date: 07JUN2013

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology (anaerobic) <sup>3,4</sup>	Report results Report results	Gram-positive rods Circular, low convex, entire, smooth and gray (Figure 1)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 900 base pairs)	≥ 99% identical to GenBank: AJTJ01000131 ( <i>B. longum</i> subsp. <i>longum</i> , strain 2-2B)	≥ 99% identical to GenBank: AJTJ01000131 ( <i>B. longum</i> subsp. <i>longum</i> , strain 2-2B)
Viability (post-freeze) <sup>3</sup>	Growth	Growth

Quality control of HMP material is only performed to demonstrate that the material distributed by BEI Resources is identical to the deposited material. It should not be considered a complete characterization of the deposited organism.

<sup>&</sup>lt;sup>4</sup>Anaerobic and 5%-CO<sub>2</sub> colony types were observed when HM-848 was grown on Tryptic Soy agar with 5% defibrinated sheep blood for 48 hours. The 16S gene of each colony type was sequenced and both colonies were consistent with *B. longum* subsp. *longum*. *B. longum* subsp. *longum* is an aerotolerant anaerobe and the presence of growth in an aerobic atmosphere with 5%CO<sub>2</sub> is not unexpected.



**Date:** 07 OCT 2013 **Signature:** 

Title: Technical Manager, BEI Authentication or designee

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<sup>&</sup>lt;sup>2</sup>B. longum subsp. longum, strain 2-2B was deposited by Andrei Shkoporov, Senior Scientist, Department of Microbiology, Russian National Research Medical University, Moscow, Russia. HM-848 was produced by inoculation of the deposited material into Modified Reinforced Clostridial broth and incubated for 48 hours at 37°C in an anaerobic atmosphere (90% N<sub>2</sub>:5% CO<sub>2</sub>:5% H<sub>2</sub>). The material from the initial growth was passaged once in Modified Reinforced Clostridial broth for 48 hours at 37°C in an anaerobic atmosphere to produce this lot. Purity of this lot was accessed for 7 days under propagation conditions.

<sup>&</sup>lt;sup>3</sup>48 hours at 37°C in an anaerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood