

SUPPORTING INFECTIOUS DISEASE RESEARCH

Product Information Sheet for HM-411

Bifidobacterium EX336960VC18

breve, Strain

Catalog No. HM-411

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: Bifidobacteriaceae, Bifidobacterium

Species: Bifidobacterium breve

Strain: EX336960VC18

Original Source: Bifidobacterium breve (B. breve), strain EX336960VC18 was isolated in 2010 from a human mid-

vaginal wall in Richmond, Virginia, USA.1,2

<u>Comments</u>: *B. breve*, strain EX336960VC18 (<u>HMP ID 9666</u>) is a reference genome for <u>The Human Microbiome Project</u> (HMP). HMP is an initiative to identify and characterize human microbial flora. *B. breve*, strain EX336960VC18 is currently being sequenced at the <u>Virginia Commonwealth University</u>.

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. breve is an anaerobic, non-motile, Gram-positive bacterium commonly found in the normal human gut. It 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. *B. breve* is of interest for use as a probiotic.³⁻⁵

Material Provided:

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

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

Packaging/Storage:

HM-411 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:

Reinforced Clostridial broth 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.
- Transfer the entire thawed aliquot into a single tube of broth.
- Use several drops of the suspension to inoculate an agar slant and/or plate.
- Incubate the tube, slant and/or plate at 37°C for 2 to 3 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 breve*, Strain EX336960VC18, HM-411."

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, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

- 1. Buck, G. A., Personal Communication.
- HMP ID 9666 (Bifidobacterium breve, strain EX336960VC18)
- Kleerebezem, M. and E. E. Vaughan. "Probiotic and Gut Lactobacilli and Bifidobacteria: Molecular Approaches to Study Diversity and Activity." <u>Annu. Rev. Microbiol.</u> 63 (2009): 269-290. PubMed: 19575569.
- Lee, J. H. and D. J. O'Sullivan. "Genomic Insights into Bifidobacteria." <u>Microbiol. Mol. Biol. Rev.</u> 74 (2010): 378-416. PubMed: 20805404.
- Leahy, S. C., et al. "Getting Better with Bifidobacteria." J. Appl. Microbiol. 98 (2005): 1303-1315. PubMed: 15916644.

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