

SUPPORTING INFECTIOUS DISEASE RESEARCH

Product Information Sheet for HM-643

Lactobacillus johnsonii, Strain 135-1-CHN

Catalog No. HM-643

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: Lactobacillaceae, Lactobacillus

Species: Lactobacillus johnsonii

Strain: 135-1-CHN

Original Source: Lactobacillus johnsonii (L. johnsonii), strain 135-1-CHN was isolated in 2007 from the vaginal mucosa of a Chinese woman.^{1,2}

<u>Comments</u>: *L. johnsonii*, strain 135-1-CHN (<u>HMP ID 5275</u>) is a reference genome for <u>The Human Microbiome Project</u> (HMP). HMP is an initiative to identify and characterize human microbial flora. The complete genome of *L. johnsonii*, strain 135-1-CHN is currently being sequenced at the <u>Broad Institute</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.

L. johnsonii is a Gram-positive, mesophilic, non-motile facultative anaerobe bacterium that is commonly found in the normal human gastrointestinal tract.³ *L. johnsonii* strains have been used as effective probiotics in suppressing human *Helicobacter pylori* infections⁴ and controlling diseases in the poultry industry.

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Lactobacilli MRS 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-643 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:

Lactobacilli MRS broth or equivalent Lactobacilli MRS agar or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic or Microaerophilic (CO2 is not required

for growth)

Propagation:

- 1. Keep vial frozen until ready for use, then thaw.
- 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.
- 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: *Lactobacillus johnsonii*, Strain 135-1-CHN, HM-643."

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.

Disclaimers:

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References:

- 1. Liu, Y. and Q. Xu, Personal Communication.
- 2. HMP ID 5275 (Lactobacillus johnsonii, strain 135-1-CHN)
- 3. Fujisawa, T., et al. "Taxonomic Study of the Lactobacillus acidophilus Group, with Recognition of Lactobacillus gallinarum sp. nov. and Lactobacillus johnsonii sp. nov. and Synonymy of Lactobacillus acidophilus Group A3 (Johnson et al. 1980) with the Type Strain of Lactobacillus amylovorus (Nakamura 1981)." Int. J. Syst. Bacteriol. 42 (1992): 487-491. PubMed: 1503977.
- Pridmore, R. D., et al. "The Genome Sequence of the Probiotic Intestinal Bacterium *Lactobacillus johnsonii* NCC 533." <u>Proc. Natl. Acad. Sci. USA</u> 101 (2004): 2512-2517. PubMed: 14983040.

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