

***Lactobacillus crispatus*, Strain MV-1A-US**

Catalog No. HM-637

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Lactobacillaceae*, *Lactobacillus*

Species: *Lactobacillus crispatus*

Strain: MV-1A-US

Original Source: *Lactobacillus crispatus* (*L. crispatus*), strain MV-1A-US was isolated in 2007 from the vaginal mucosa of a healthy U.S. woman.^{1,2}

Comments: *L. crispatus*, strain MV-1A-US ([HMP ID 507](#)) is a reference genome for [The Human Microbiome Project](#) (HMP). HMP is an initiative to identify and characterize human microbial flora. *L. crispatus*, strain MV-1A-US was sequenced at the [Broad Institute](#) (GenBank: [ACOG00000000](#)).

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. crispatus is a Gram-positive, anaerobic, mesophilic, non-motile bacterium comprising the normal vaginal microbiota of human females. Its role in the regulation of pH through lactic acid production by anaerobic metabolism of glycogen helps promote a healthy ecosystem within the female lower vaginal tract.^{3,4} Loss of *L. crispatus* has been noted in women with bacterial vaginosis.³

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 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-637 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 or equivalent

Lactobacilli MRS agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic (with or without 5% CO₂) or 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: *Lactobacillus crispatus*, Strain MV-1A-US, HM-637."

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/bmbl5/bmbl5toc.htm.

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References:

1. Liu, Y. and Q. Xu, Personal Communication.
2. [HMP 507](#) (*L. crispatus*, strain MV-1A-US)
3. Srinivasan, S. and D. N. Fredricks. "The Human Vaginal Bacterial Biota and Bacterial Vaginosis." Interdiscip. Perspect. Infect. Dis. 2008 (2008): 750479. PubMed: 19282975.
4. Boskey, E. R., et al. "Acid Production by Vaginal Flora *In Vitro* Is Consistent with the Rate and Extent of Vaginal Acidification." Infect. Immun. 67 (1999): 5170-5175. PubMed: 10496892.

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