Lactobacillus crispatus, Strain 125-2-CHN

Catalog No. HM-638

For research use only. Not for use in humans.

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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Lactobacillaceae*, *Lactobacillus*
Species: *Lactobacillus crispatus*
Strain: 125-2-CHN
Original Source: *Lactobacillus crispatus (L. crispatus)*, strain 125-2-CHN is a vaginal isolate from a healthy Chinese woman obtained in 2007.[1,2]
Comments: *L. crispatus*, strain 125-2-CHN (HMP ID 5045) 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 *L. crispatus*, strain 125-2-CHN was sequenced at Broad Institute (GenBank: ACPV01000000).
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] Low abundance of *L. crispatus* has been noted in women with bacterial vaginosis and reported to result in adverse pregnancy outcomes.[4,5]

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-638 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: 35°C to 37°C
Atmosphere: Anaerobic, aerobic with 5% CO_2 or microaerophilic
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 day.

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 125-2-CHN, HM-638."

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Liu, Y. and Q. Xu, Personal Communication.
2. HMP ID 5045 (*L. crispatus*, strain 125-2-CHN)
3. 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.
4. Ceccarani, C., et al. "Diversity of Vaginal Microbiome and Metabolome During Genital Infections." Scientific Reports 9 (2019): 14095. PubMed: 31575935.
5. Grewal K, D. A. MacIntyre and P. R. Bennett. "The Reproductive Tract Microbiota in Pregnancy." Bioscience Reports 41 (2021): BSR20203908. PubMed: 34397086.

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