Product Information Sheet for HM-261

Lactobacillus plantarum, Strain KCA-1

Catalog No. HM-261

For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Lactobacillaceae, Lactobacillus*
Species: *Lactobacillus plantarum*[1,2]
Strain: KCA-1
Original Source: *Lactobacillus plantarum* (*L. plantarum*), strain KCA-1 was isolated from the vagina of a healthy, premenopausal Nigerian woman.[3,4]
Comments: *L. plantarum*, strain KCA-1 (HMP ID 9367) is a reference genome for The Human Microbiome Project (HMP). HMP is an initiative to identify and characterize human microbial flora. *L. plantarum*, strain KCA-1 is currently being sequenced at the Human Genome Sequencing Center at the Baylor College of Medicine.
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. plantarum is a facultatively heterofermentative, microaerophilic, Gram-positive, non-motile, rod-shaped bacterium commonly found in vegetables, meat, fish and dairy products as well as the human gastrointestinal tract.[5,6] There is growing interest in the beneficial effects of *L. plantarum* strains on human health.[7,8]

Material Provided:
Each vial contains approximately 0.5 mL of bacterial culture in 0.5X 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-261 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 and/or agar (ATCC medium 416)
Incubation:
Temperature: 35°C to 37°C
Atmosphere: Aerobic or Microaerophilic (CO_2 is not required for growth)
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 24 to 48 hours.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Lactobacillus plantarum*, Strain KCA-1, HM-261."

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 http://www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:
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References:

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2. Swezey, J. L., et al. "*Lactobacillus arizonensis* sp. nov., Isolated from Jojoba Meal." Int. J. Syst. Evol. Microbiol. 50 (2000): 1803-1809. PubMed: 11034490.
3. Anukam, K. C., et al. "16S rRNA Gene Sequence and Phylogenetic Tree of *Lactobacillus* Species from the Vagina of Healthy Nigerian Women." Afr. J. Biotechnol. 4 (2006): 1222-1227.
4. HMP ID 9367 (*L. plantarum*, strain KCA-1)
5. Bringel, F., et al. "*Lactobacillus plantarum* subsp. *argentoratensis* subsp. nov., Isolated from Vegetable Matrices." Int. J. Syst. Evol. Microbiol. 55 (2005): 1629-1634. PubMed: 16014493.
6. Siezen, R. J. and J. E. van Hylckama Vlieg. "Genomic Diversity and Versatility of *Lactobacillus plantarum*, a Natural Metabolic Engineer." Microb. Cell Fact. 10 Suppl. 1 (2011): S3. PubMed: 21995294.
7. Anukam, K. C. and T. E. Koyama. "Bile and Acid Tolerance of *Lactobacillus plantarum* KCA-1: A Potential Probiotical Agent." Int. J. Dairy Sci. 2 (2007): 275-280.
8. Cribby, S., M. Taylor, and G. Reid. "Vaginal Microbiota and the Use of Probiotics." Interdiscip. Perspect. Infect. Dis. 2008 (2008): 9 pp. PubMed: 19343185.

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