

Certificate of Analysis for HM-421

Lactobacillus crispatus*, Strain EX533959VC05*Catalog No. HM-421****Product Description:** *Lactobacillus crispatus* (*L. crispatus*), strain EX533959VC05 was isolated from a human mid-vaginal wall in March, 2010 in Richmond, Virginia.**Lot^{1,2}: 59852055****Manufacturing Date: 29MAR2011**

| TEST | SPECIFICATIONS | RESULTS |
|--|--|---|
| Phenotypic Analysis Cellular morphology Colony morphology ³ | Gram-positive rod Report results | Gram-positive rod Irregular, low convex and translucent (Figure 1) |
| Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1420 base pairs) | ≥ 99% identical to depositor's sequence Consistent with <i>L. crispatus</i> | Pending Consistent with <i>L. crispatus</i> |
| Viability (post-freeze)³ | Growth | Growth |

¹Quality control of HMP material is only performed to demonstrate that the material distributed by BEI Resources is identical to the deposited material. It should not be considered a complete characterization of the deposited organism.

²*L. crispatus*, strain EX533959VC05 was deposited by Professor Gregory A. Buck, Director, Center for the Study of Biological Complexity, Department of Microbiology and Immunology, Virginia Commonwealth University Medical Center, Richmond, Virginia. The deposited material was inoculated into Lactobacilli MRS Broth and incubated for 72 hours at 37°C in an aerobic atmosphere with 5% CO₂. The material from the initial growth was passaged once in Lactobacilli MRS Broth for 24 hours at 37°C in an aerobic atmosphere with 5% CO₂ to produce this lot.

³48 hours at 37°C in an aerobic atmosphere with 5% CO₂ on Lactobacilli MRS Agar

Figure 1**Date:** 16 AUG 2011**Signature:****Title:**

Technical Manager, BEI Authentication or designee

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by ATCC® to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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