b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

# Certificate of Analysis for HM-84

## Clostridiales bacterium, Strain 3_1_39B/D5

## Catalog No. HM-84

**Product Description:** Clostridiales bacterium, strain 3_1_39B/D5 was isolated from healthy biopsy tissue from the gastrointestinal tract of a 44-year-old woman undergoing a colon cancer screen procedure in Alberta, Canada in 2007. [HM-84 was deposited to BEI Resources as unclassified *Clostridium*; digital DNA-DNA hybridization (dDDH) analysis, performed at BEI Resources, could not confirm the species-level classification.]

**Lot[1,2]: 58989281** **Manufacturing Date: 22MAR2010**

| TEST | SPECIFICATIONS | RESULTS |
|---|---|---|
| **Phenotypic Analysis**<br>Cellular morphology<br>Colony morphology[3] | <br>Gram-positive rods<br>Report results | <br>Gram-positive rods<br>Circular, entire, low convex, and whitish gray (Figure 1) |
| **Genotypic Analysis**<br>Sequencing of 16S ribosomal RNA gene (~ 1350 base pairs)<br>Digital DNA-DNA hybridization (dDDH)[4] | <br>≥ 99% identical to depositor's sequence<br>≥ 70% for species identification | <br>≥ 99% identical to depositor's sequence<br>*Faecalicatena fissicatena* (92.9%)[5] |
| **Viability (post-freeze)[2]** | Growth | Growth |

[1]Quality 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]Clostridiales bacterium, Strain 3_1_39B/D5 was deposited by Emma Allen-Vercoe, Department of Molecular and Cellular Biology, University of Guelph, Guelph, Ontario, Canada. The deposited material was inoculated into Modified Reinforced Clostridial broth and incubated for 2 days at 37°C and anaerobic atmosphere (80% $N_2$:10% $CO_2$:10% $H_2$). The material from the initial growth was passaged two times in Modified Reinforced Clostridial broth for 2 days at 37°C and anaerobic atmosphere to produce this lot.

[3]2 days at 37°C and anaerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

[4]Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, refer to Auch, A. F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." Stand Genomic Sci. 2 (2010): 117-134. PubMed: 21304684.

[5]The required whole genome sequence for the type strain of this species is not available. *Faecalicatena fissicatena*, strain KCTC 15010 (GenBank: LDAQ00000000.1) was used for dDDH analysis. Because this strain is not the type strain and therefore, may be identified incorrectly, the dDDH only indicates Clostridiales bacterium, Strain 3_1_39B/D5 belongs to the same species as KCTC 15010.

**Figure 1: Colony Morphology**

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/Heather Couch/
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Program Manager or designee, ATCC Federal Solutions

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