

Clostridiales bacterium, Strain 4_1_37FAA

Catalog No. HM-182

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Contributors:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: Clostridia, Clostridiales, *Lachnospiraceae* [HM-182 was deposited to BEI Resources as unclassified *Lachnospiraceae*; digital DNA-DNA hybridization (dDDH) analysis, performed at BEI Resources, could not confirm the species-level classification.]

Strain: 4_1_37FAA (also known as 6_1_37AA)

Original Source: Clostridiales bacterium, strain 4_1_37FAA was isolated in 2007 from noninflamed biopsy tissue taken from the ascending colon of a 71-year-old female patient with indeterminate colitis in Alberta, Canada.^{1,2}

Comments: Clostridiales bacterium, strain 4_1_37FAA ([HMP ID 0985](#)) 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 Clostridiales bacterium, strain 4_1_37FAA was sequenced at the [Broad Institute](#) (GenBank: [ADCR00000000](#)).

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.

Clostridiales bacteria are generally Gram-positive, rod-shaped, obligate anaerobes that are ubiquitous in virtually all anoxic habitats where organic compounds are found, especially soils, aquatic sediments and the intestinal tracts of animals and humans. Bacteria of the order Clostridiales have a Gram-positive cell wall but may stain Gram-variable or Gram-negative.³ Most species have the ability to form spores^{4,5} and a few are pathogenic, producing very potent biological toxins known to affect humans.⁶

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Modified Reinforced Clostridial broth supplemented with 5% dimethylsulfoxide (DMSO).

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

HM-182 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:

Modified Reinforced Clostridial broth or Trypticase-Yeast Extract broth⁸ or equivalent
Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

Incubation:

Temperature: 37°C
Atmosphere: 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 2 to 3 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: Clostridiales bacterium, Strain 4_1_37FAA, HM-182."

Biosafety Level: 2

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 www.cdc.gov/biosafety/publications/bmb15/index.htm.

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References:

1. Allen-Vercoe, E., Personal Communication.
2. [HMP ID 0985](#) (Clostridiales bacterium, strain 4_1_37FAA)
3. Lawson, P. A., et al. "Anaerobes: A Piece in the Puzzle for Alternative Biofuels." *Anaerobe* 17 (2011): 206-210. PubMed: 21699990.
4. Mallozzi, M., V. K. Viswanathan and G. Vedantam. "Spore-forming Bacilli and Clostridia in Human Disease." *Future Microbiol.* 5 (2010): 1109-1123. PubMed: 20632809.
5. Paredes-Sabja, D., P. Setlow and M. R. Sarker. "Germination of Spores of Bacillales and Clostridiales Species: Mechanisms and Proteins Involved." *Trends Microbiol.* 19 (2011): 85-94. PubMed: 21112786.
6. Popoff, M. R. and P. Bouvet. "Clostridial Toxins." *Future Microbiol.* 4 (2009): 1021-1064. PubMed: 19824793.
7. Sizova, M. V., et al. "New Approaches for Isolation of Previously Uncultivated Oral Bacteria." *Appl. Environ. Microbiol.* 78 (2012): 194-203. PubMed: 22057871.

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