

***Clostridium clostridioforme*, Strain 2_1_49FAA**

Catalog No. HM-306

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Clostridiaceae*, *Clostridium*

Species: *Clostridium clostridioforme*

Strain: 2_1_49FAA

Original Source: *Clostridium clostridioforme* (*C. clostridioforme*), strain 2_1_49FAA was isolated from inflamed biopsy tissue taken from the cecum of a 28-year-old male patient with ulcerative colitis.^{1,2}

Comments: *C. clostridioforme*, strain 2_1_49FAA ([HMP ID 9467](#)) 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 *C. clostridioforme* 2_1_49FAA is currently being sequenced at the [Broad Institute](#) (GenBank: [ADLL00000000](#)).

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.

C. clostridioforme is an obligately anaerobic, football-shaped bacillus usually found in the lower gastrointestinal tract of humans and animals.³ It differs from most *Clostridium* species in that it typically stains Gram negative and spores are difficult to find. *C. clostridioforme* was known previously as a complex, consisting of a group of *Clostridium* species including *C. hathewayi*, *C. bolteae* and *C. clostridioforme*.⁴ *C. clostridioforme* displays high antibiotic resistance and is capable of causing severe, invasive infections.^{5,6}

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Modified Reinforced Clostridial medium supplemented with 10% glycerol.

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

Packaging/Storage:

HM-306 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 medium or Modified Chopped Meat medium

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 1 to 2 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Clostridium clostridioforme*, Strain 2_1_49FAA, HM-306."

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

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References:

1. Allen-Vercoe, E., Personal Communication.
2. [HMP ID 9467](#) (*C. clostridioforme*, strain 2_1_49FAA)
3. Kaneuchi, C., et al. "Taxonomic Study of *Bacteroides clostridiiformis* subsp. *clostridiiformis* (Burri and Ankersmit) Holdeman and Moore and of Related Organisms: Proposal of *Clostridium clostridiiformis* (Burri and Ankersmit) comb. nov. and *Clostridium symbiosum* (Stevens) comb. nov." *Int. J. Syst. Bacteriol.* 26 (1976): 195-204.
4. Finegold, S. M., et al. "*Clostridium clostridioforme*: A Mixture of Three Clinically Important Species." *Eur. J. Clin. Microbiol. Infect. Dis.* 24 (2005): 319-324. PubMed: 15891914.
5. Ogah, K., K. Sethi and V. Karthik. "*Clostridium clostridioforme* Liver Abscess Complicated by Portal Vein Thrombosis in Childhood." *J. Med. Microbiol.* (2011): *in press*. PubMed: 21940652.
6. Alexander, C. J., et al. "Identification and Antimicrobial Resistance Patterns of Clinical Isolates of *Clostridium clostridioforme*, *Clostridium innocuum*, and *Clostridium ramosum* Compared with Those of Clinical Isolates of *Clostridium perfringens*." *J. Clin. Microbiol.* 33 (1995): 3209-3215. PubMed: 8586704.
7. Yuli, S., L. Chengxu and M. F. Sydney. "Multiplex PCR for Rapid Differentiation of Three Species in the '*Clostridium clostridioforme* Group.'" *FEMS Microbiol. Lett.* 244 (2005): 391-395. PubMed: 15766796.

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