

***Clostridium* *clostridioforme*, Strain WAL-7855**

Catalog No. HM-317

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Clostridiaceae*, *Clostridium*

Species: *Clostridium clostridioforme* (also referred to as *Enterocloster clostridioformis*)¹

Strain: WAL-7855

Original Source: *Clostridium clostridioforme* (*C. clostridioforme*), strain WAL-7855 was isolated from the appendix of an adult male with appendicitis.^{2,3}

Comments: *C. clostridioforme*, strain WAL-7855 ([HMP ID 9471](#)) 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* WAL-7855 was sequenced at the [Broad Institute](#) (Genbank: [ADLM00000000](#)).

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.⁴ 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*.⁵ Reclassification of *C. clostridioforme* to the novel genus *Enterocloster* has been validly published following a comprehensive phylogenomic and phenotypic analysis of the genus *Clostridium*, and is currently under debate.¹ *C. clostridioforme* displays high antibiotic resistance and is capable of causing severe, invasive infections.^{6,7}

Material Provided:

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

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

Packaging/Storage:

HM-317 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:

Reinforced Clostridial broth

Tryptic Soy agar with 5% defibrinated sheep blood or equivalent

Note: HM-317 did not grow on Tryptic Soy agar with 5% defibrinated sheep blood.

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 3 to 4 days. Broth cultures should include shaking.

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 WAL-7855, HM-317."

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](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Haas, K. N., and J. L. Blanchard. "Reclassification of the *Clostridium clostridioforme* and *Clostridium sphenoides* Clades as *Enterocloster* gen. nov. and *Lacrimispora* gen. nov., Including Reclassification of 15 Taxa." *Int. J. Syst. Evol. Microbiol.* 70 (2020): 23-34. PubMed: 31782700.
2. Allen-Vercos, E., Personal Communication.
3. [HMP 9471](#) (*C. clostridioforme*, strain WAL-7855)
4. Kaneuchi, C., et al. "Taxonomic Study of *Bacteroides clostridioformis* subsp. *clostridioformis* (Burri and Ankersmit) Holdeman and Moore and of Related Organisms: Proposal of *Clostridium clostridioformis* (Burri and Ankersmit) comb. nov. and *Clostridium symbiosum* (Stevens) comb. nov." *Int. J. Syst. Bacteriol.* 26 (1976): 195-204.
5. 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.
6. Ogah, K., K. Sethi and V. Karthik. "*Clostridium clostridioforme* Liver Abscess Complicated by Portal Vein Thrombosis in Childhood." *J. Med. Microbiol.* 61 (2012): 297-299. PubMed: 21940652.
7. 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.

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