

***Clostridium perfringens*, Strain WAL-14572**

Catalog No. HM-310

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 perfringens*

Strain: WAL-14572

Original Source: *Clostridium perfringens* (*C. perfringens*), strain WAL-14572 was isolated from human feces.^{1,2}

Comments: *C. perfringens*, strain WAL-14572 ([HMP ID 9476](#)) 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. perfringens*, strain WAL-14572 was sequenced at the [Broad Institute](#) (GenBank: [ADLP00000000](#)).

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. perfringens are Gram-positive, spore-forming, obligately anaerobic, soil-dwelling bacteria that can infect humans and domestic livestock. It is a normal inhabitant of the gastrointestinal tract of humans and animals, but it can be pathogenic in certain circumstances.² *C. perfringens* isolates are classified into five distinct types, A to E, based on the toxins produced during their growth.^{2,3,4} It is a major cause of human and veterinary enteric disease often responsible for food poisoning, dysentery, gas gangrene and necrotic enteritis.^{2,3,4}

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Modified 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-310 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 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: *Clostridium perfringens*, Strain WAL-14572."

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](#). 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. Allen-Vercoe, E., Personal Communication.
2. [HMP ID 9476](#) (*Clostridium perfringens*, strain WAL-14572)
3. Petit, L., M. Gibert and M. R. Popoff. "Clostridium perfringens: Toxinotype and Genotype." Trends Microbiol. 7 (1999): 104-110. PubMed: 10203838.
4. Smedley, J. G., 3rd, et al. "The Enteric Toxins of Clostridium perfringens." Rev. Physiol. Biochem. Pharmacol. 152 (2004): 183-204. PubMed: 15517462.
5. Rood, J. I. "Virulence Genes of Clostridium perfringens." Annu. Rev. Microbiol. 52 (1998): 333-360. PubMed: 9891801.
6. Titball, R. W. "Clostridium perfringens Vaccines." Vaccine 27 (2009): D44-D47. PubMed: 19837285.

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