

***Clostridium citroniae*, Strain WAL-17108**

**Catalog No. HM-315**

**For research use only. Not for human use.**

**Contributor:**

Emma Allen-Vercoe, Assistant Professor, Department of Molecular and Cellular Biology, University of Guelph, Guelph, Ontario, Canada

**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Clostridiaceae*, *Clostridium*

Species: *Clostridium citroniae*

Strain: WAL-17108 (Wadsworth Anaerobe Laboratory)

Original Source: *Clostridium citroniae* (*C. citroniae*), strain WAL-17108 was isolated from the stool of an autistic boy.<sup>1</sup>

Comments: *C. citroniae*, strain WAL-17108 ([HMP ID 9469](#)) 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. citroniae*, strain WAL-17108 is currently being sequenced at the [Broad Institute](#) (GenBank: [ADLJ00000000](#)).

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. citroniae* is a Gram-positive, spore-forming, obligately anaerobic bacteria that is part of normal human gut flora.<sup>2</sup> It differs from most *Clostridium* species in that it typically stains Gram-negative and spores may be difficult to find.<sup>2</sup> *C. citroniae* and *C. aldenense* are recent additions to the *C. clostridioforme* complex, which includes *C. bolteae*, *C. clostridioforme* and *C. hathewayi*.<sup>2,3</sup> *C. citroniae* has been isolated from intra-abdominal or lower gastrointestinal infections of humans.<sup>2</sup>

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X 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-315 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 ([ATCC medium 2107](#)) or equivalent

Tryptic Soy Agar with 5% defibrinated sheep blood or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Anaerobic (80% N<sub>2</sub>:10% CO<sub>2</sub>:10% H<sub>2</sub>)

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 48 to 72 hours.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH as part of the Human Microbiome Project: *Clostridium citroniae*, Strain WAL-17108, HM-315."

**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 <http://www.cdc.gov/biosafety/publications/bmlb5/index.htm>.

**Disclaimers:**

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at [www.beiresources.org](http://www.beiresources.org).

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI

Resources are not liable for damages arising from the misidentification or misrepresentation of products.

**Use Restrictions:**

**This material is distributed for internal research, non-commercial purposes only.** This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

**References:**

1. [HMP ID 9469](#) (*C. citroniae*, strain WAL-17108)
2. Warren, Y. A., et al. "*Clostridium aldenense* sp. nov. and *Clostridium citroniae* sp. nov. Isolated from Human Clinical Infections." J. Clin. Microbiol. 44 (2006): 2416-2422. PubMed: 16825358.
3. 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.

ATCC® is a trademark of the American Type Culture Collection.

