

***Bordetella pertussis*, Strain I176**

Catalog No. NR-42463

For research use only. Not for use in humans.

Contributor:

Eric Harvill, Professor of Microbiology and Infectious Disease, Department of Veterinary and Biomedical Sciences, The Pennsylvania State University, University Park, Pennsylvania, USA

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Alcaligenaceae, Bordetella*

Species: *Bordetella pertussis*

Strain: I176

Original Source: *Bordetella pertussis* (*B. pertussis*), strain I176 was isolated in 2012 from a nasopharyngeal swab of a patient with whooping cough in Washington, USA.¹

Comments: The complete genome sequence of *B. pertussis*, strain I176 has been sequenced (GenBank: [AXSG00000000](https://www.ncbi.nlm.nih.gov/nuclseq/AXSG00000000)).²

B. pertussis is a Gram-negative, fastidious, non-motile coccobacilli that is a highly contagious, exclusively human pathogen. It is the causative agent of pertussis (whooping cough), an acute upper respiratory tract infection characterized by coughing fits (paroxysms), a whooping noise heard in the subsequent inspiration following a paroxysm and prolonged clinical course lasting for several weeks. Infection in adolescents and adults is typically mild; however, in children, particularly young infants, infection can be severe and sometimes deadly.^{3,4,5}

Material Provided:

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

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

Packaging/Storage:

NR-42463 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:

Liquid Stainer Scholte with Heptakis broth or Bordet Gengou broth or equivalent

Regan Low agar or Bordet Gengou agar (with or without 15% rabbit serum)¹ or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic with or without 5% CO₂

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 7 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Bordetella pertussis*, Strain I176, NR-42463."

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.

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.

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. Harvill, E., Personal Communication.
2. Harvill, E. T., et al. "Genome Sequences of 28 *Bordetella pertussis* U.S. Outbreak Strains Dating from 2010 to 2012." Genome Announc. 1 (2013): e01075-13. PubMed: 24356839.
3. Friedman, R. L. "Pertussis: The Disease and New Diagnostic Methods." Clin. Microbiol. Rev. 1 (1998): 365-376. PubMed: 2906814.
4. Mattoo, S. and J. D. Cherry. "Molecular Pathogenesis, Epidemiology, and Clinical Manifestations of Respiratory Infections Due to *Bordetella pertussis* and Other *Bordetella* Subspecies." Clin. Microbiol. Rev. 18 (2005): 326-382. PubMed: 15831828.
5. Sabella, C. "Pertussis: Old Foe, Persistent Problem." Cleve. Clin. J. Med. 72 (2005): 601-608. PubMed: 16044656.

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

