

***Bordetella holmesii*, Strain 41130**

**Catalog No. NR-43499**

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

**Contributor:**

Adam Ratner, M.D., M.P.H., Assistant Professor, Department of Pediatrics, Columbia University, New York, New York, USA

**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Alcaligenaceae, Bordetella*

Species: *Bordetella holmesii*

Strain: 41130

Original Source: *Bordetella holmesii* (*B. holmesii*), strain 41130 was isolated in October 2010 from a human bloodstream sample in the United States.<sup>1</sup>

Comments: Strain 41130 was deposited as a brown pigment producing strain. The complete genome sequence of *B. holmesii*, strain 41130 has been sequenced (GenBank: [NZ JDSC00000000](#)).

*B. holmesii* is a Gram-negative, fastidious, non-motile coccobacilli that produces a brown soluble pigment and is closely related to *Bordetella pertussis*.<sup>2-4</sup> It is an emerging opportunistic pathogen that has been linked to invasive infections among immunocompromised patients, particularly those lacking splenic function. In healthy individuals, it can cause respiratory disease, including a pertussis-like illness.<sup>3-5</sup>

**Material Provided:**

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

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

**Packaging/Storage:**

NR-43499 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:

Tryptic Soy broth or Brain Heart Infusion broth or Bordet Gengou broth or equivalent

Tryptic Soy agar with 5% defibrinated sheep blood or Brain Heart Infusion agar or Bordet Gengou agar or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic with or without 5% CO<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 2 to 7 days.

**Citation:**

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Bordetella holmesii*, Strain 41130, NR-43499.”

**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 [www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.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. Ranter, A., Personal Communication.
2. Weyant, R. S., et al. "*Bordetella holmesii* sp. nov., a New Gram-Negative Species Associated with Septicemia." J. Clin. Microbiol. 33 (1995): 1-7. PubMed: 7699023.
3. Planet, P. J., et al. "*Bordetella holmesii*: Initial Genomic Analysis of an Emerging Opportunist." Pathog. Dis. 67 (2013): 132-135. PubMed: 23620158.
4. Zhang, X., et al. "Lack of Cross-Protection against *Bordetella holmesii* after Pertussis Vaccination." Emerg. Infect. Dis. 18 (2012): 1771-1779. PubMed: 23092514.
5. Mazengia, E., et al. "Recovery of *Bordetella holmesii* from Patients with Pertussis-Like Symptoms: Use of Pulsed-Field Gel Electrophoresis to Characterize Circulating Strains." J. Clin. Microbiol. 38 (2000): 2330-2333. PubMed: 10834997.

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

