

## ***Bordetella holmesii*, Strain H585**

**Catalog No. NR-44168**

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

### **Contributor:**

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### **Manufacturer:**

BEI Resources

### **Product Description:**

Bacteria Classification: *Alcaligenaceae*, *Bordetella*

Species: *Bordetella holmesii*

Strain: H585 (also referred to as CDC-H585-BH)

Original Source: *Bordetella holmesii* (*B. holmesii*), strain H585 was isolated in 2010 from blood of a patient with bacteremia in Minnesota, USA.<sup>1</sup>

Comments: The complete genome sequence of *B. holmesii*, strain H585 has been sequenced (GenBank: [JFZZ00000000](https://www.ncbi.nlm.nih.gov/nuclot/JFZZ00000000)).<sup>1</sup>

*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 Brain Heart Infusion broth supplemented with 10% glycerol.

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

### **Packaging/Storage:**

NR-44168 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 H585, NR-44168."

### **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/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm).

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**References:**

1. Harvill, E. T., et al. "Genome Sequences of Nine *Bordetella holmesii* Strains Isolated in the United States." Genome Announc. 3 (2014): e00438-14. PubMed: 24948754.
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.

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