

***Bordetella pertussis*, Strain H973**

Catalog No. NR-42460

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Alcaligenaceae*, *Bordetella*

Species: *Bordetella pertussis*

Strain: H973

Original Source: *Bordetella pertussis* (*B. pertussis*), strain H973 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 H973 has been sequenced (GenBank: [AXSK02000000](#)).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-42460 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:

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

Regan-Lowe agar or Bordet Gengou agar (with or without 10% defibrinated sheep blood)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 (with shaking)¹, 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 H973, NR-42460."

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 (BMBL). Current Edition. Washington, DC: U.S. Government Printing Office.

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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.

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