

***Bordetella pertussis*, Strain H921**

Catalog No. NR-42457

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: H921

Original Source: *Bordetella pertussis* (*B. pertussis*), strain H921 was isolated in 2012 from a nasopharyngeal swab of a patient with whooping cough in Washington, USA.¹

Comments: The complete genome of *B. pertussis*, strain H921 has been sequenced (GenBank: [AXSM00000000](#)).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, the 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-42457 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) or equivalent¹

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), slant and/or plate at 37°C for 2 to 7 days.¹

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Bordetella pertussis*, Strain H921, NR-42457.”

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.

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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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