

***Bordetella pertussis*, Strain H762**

Catalog No. NR-56499

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For research use only. Not for use in humans.

Contributor:

M. Lucia Tondella, Ph.D., Team Lead, Pertussis and Diphtheria Laboratory, National Center for Immunization and Respiratory Diseases, Division of Bacterial Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Alcaligenaceae*, *Bordetella*

Species: *Bordetella pertussis*

Strain: H762

Original Source: *Bordetella pertussis* (*B. pertussis*), strain H762 was isolated in 2011 from a human in the United States.¹

Comments: Strain H762 is characterized as a pertactin-negative strain in clade CDC237, the most prevalent circulating clade in the United States.^{1,2,3} The complete genome of *B. pertussis*, strain H762 has been sequenced (GenBank: [CP011696](#)).

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.^{4,5,6}

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-56499 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 (with 15% rabbit serum) or equivalent

Regan-Lowe agar or Bordet Gengou agar (with 15% rabbit serum) or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic

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 H762, NR-56499."

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 \(BMBL\)](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

1. Tondella, M. L., Personal Communication.
2. Natrajand, M. S., et al. "Genome-Based Prediction of Cross-Protective, HLA-DR-Presented Epitopes as Putative Vaccine Antigens for Multiple *Bordetella* species." Microbiol. Spectr. 12 (2024): e0352723. PubMed: 38054724.
3. DeJong, M. A., et al. "CpG 1018® Adjuvant Enhances Tdap Immune Responses against *Bordetella pertussis* in Mice." Vaccine 40 (2022): 5229-5240. PubMed: 35927132.
4. Friedman, R. L. "Pertussis: The Disease and New Diagnostic Methods." Clin. Microbiol. Rev. 1 (1998): 365-376. PubMed: 2906814.
5. 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.
6. Sabella, C. "Pertussis: Old Foe, Persistent Problem." Cleve. Clin. J. Med. 72 (2005): 601-608. PubMed: 16044656.
7. Weigand, M. R., et al. "The History of *Bordetella pertussis* Genome Evolution Includes Structural Rearrangement." J. Bacteriol. 199 (2017): e00806-16. PubMed: 28167525.

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