

***Bordetella bronchiseptica*, Strain D993**

Catalog No. NR-44158

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Alcaligenaceae, Bordetella*

Species: *Bordetella bronchiseptica*

Strain: D993 (also referred to as B4699)¹

Original Source: *Bordetella bronchiseptica* (*B. bronchiseptica*), strain D993 was isolated in 1970 from a human sample in California, USA.^{1,2}

Comments: The complete genome sequence of *B. bronchiseptica*, strain D993 has been sequenced (GenBank: [JGWV00000000](http://www.ncbi.nlm.nih.gov/nuccore/JGWV00000000)).²

B. bronchiseptica is a Gram-negative motile coccobacillus that is known to colonize the respiratory tract of a large number of animals. It is an emerging opportunistic pathogen that has been linked to invasive infections among immunocompromised patients. The severity of a *B. bronchiseptica* infection can range from long-term asymptomatic carriage in the upper respiratory tract to fatal pneumonia.³⁻⁵

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-44158 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% 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, 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 bronchiseptica*, Strain D993, NR-44158."

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.

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References:

1. Harvill, E. T., Personal Communication.
2. Register, K. B., et al. "Draft Genome Sequences of 53 Genetically Distinct Isolates of *Bordetella bronchiseptica* Representing 11 Terrestrial and Aquatic Hosts." Genome Announc. 23 (2015): e00152-15. PubMed: 25908122.
3. Garcia-de-la-Fuente, C., et al. "Microbiological and Clinical Aspects of Respiratory Infections Associated with *Bordetella bronchiseptica*." Diagn. Microbiol. Infect. Dis. 82 (2015): 20-25. PubMed: 25703895.
4. Yacoub, A. T., et al. "*Bordetella bronchiseptica* in the Immunosuppressed Population – a Case Series and Review." Mediterr. J. Hematol. Infect. Dis. 6 (2014): e2014031. PubMed: 24804004.
5. Buboltz, A. M., et al. "Role of the Type III Secretion System in a Hypervirulent Lineage of *Bordetella bronchiseptica*." Infect. Immun. 77 (2013): 3969-3977. PubMed: 19596779.

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