

## Fimbrial Proteins 2 and 3 from *Bordetella pertussis*

### Catalog No. NR-34573

This reagent is the tangible property of the U.S. Government.

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

#### Contributor:

BEI Resources

#### Manufacturer:

List Biological Laboratories, Inc.

#### Product Description:

Fimbrial proteins 2 and 3 (FIM 2/3) were purified from a W28-derived strain of *Bordetella pertussis* (*B. pertussis*).

*B. pertussis* fimbriae are long filamentous protrusions which extend from the cell surface and facilitate a variety of binding capabilities. They contain both major and minor subunits, with the major units forming the fimbrial strands and the minor subunit considered an adhesion.<sup>1</sup> The fimbriae elicit protective immune responses and are therefore included in some acellular pertussis vaccines.<sup>1</sup>

*B. pertussis* produces two distinct types of fimbriae using the major subunits expressed from the *fim2* and *fim3* genes and the minor fimbrial subunit, encoded by *fimD*. The level of expression of the major subunits of fimbriae determines the serotype, which can be Fim2, Fim3 or Fim2/3.<sup>1</sup>

#### Material Provided:

Each vial of NR-34573 contains 50 µg of lyophilized FIM 2/3 sealed under vacuum. In order to recover the contents of the vial, reconstitute with 0.25 mL of molecular grade water containing at least 0.05% Tween 20. In addition to the Tween 20, the buffer will contain 10 mM Tris-HCl (pH 8.0), 150 mM NaCl and 0.1% sucrose.

#### Storage:

NR-34573 is shipped on frozen ice bricks and should be stored at -20°C or colder prior to reconstitution. Reconstituted FIM 2/3 should be stored at -60°C or colder. Repeated freezing and thawing or maintaining reconstituted product at 2°C to 8°C for extended periods of time is not recommended. Handle the product gently. DO NOT VORTEX.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Fimbrial Proteins 2 and 3 from *Bordetella pertussis*, NR-34573."

#### Biosafety Level: 1

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/biosafety/publications/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

#### Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at [www.beiresources.org](http://www.beiresources.org).

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

#### Use Restrictions:

**This material is distributed for internal research, non-commercial purposes only.** This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

#### References:

- Smith, A. M., Guzmán, C. A., and Walker, M.J. "The Virulence Factors of *Bordetella pertussis*: A Matter of Control." FEMS Microbiol. Rev. 25 (2001): 309-333. PubMed: 11348687.

ATCC® is a trademark of the American Type Culture Collection.

