Product Information Sheet for NR-31065

Filamentous Hemagglutinin (FHA) from *Bordetella pertussis*

Catalog No. NR-31065

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

For research use only. Not for human use.

Contributor:

BEI Resources

Manufacturer:

Sigma-Aldrich®

Product Description:

Filamentous hemagglutinin adhesin (FHA) was purified from *Bordetella pertussis* (*B. pertussis)* by conventional chromatography.[1,2]

FHA is a major virulence factor involved in adhesion and spread of *B. pertussis* throughout the respiratory tract. Studies with FHA-deficient *B. pertussis* strains have implicated FHA in tracheal colonization, cell adherence, and invasion of macrophages and epithelial cells.[3] FHA is a component of several of the acellular pertussis vaccines licensed for use in the U.S.

Material Provided:

Each vial of NR-31065 contains 50 µg of lyophilized FHA. When reconstituted with 0.5 mL of molecular grade water, the concentration of buffer is 50 mM Tris-HCl (pH 8.0), 500 mM NaCl and 1.25% trehalose.

Storage:

NR-31065 is provided on refrigerated bricks and should be stored at 2°C to 8°C immediately upon arrival.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Filamentous Hemagglutinin (FHA) from *Bordetella pertussis*, NR-31065."

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.

Disclaimers:

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References:

1. Arai, H. and Y. Sato. "Separation and Characterization of Two Distinct Hemagglutinins Contained in Purified Leukocytosis-Promoting Factor from *Bordetella pertussis*." Biochim. Biophys. Acta 444 (1976): 765-782. PubMed: 186106.
2. Irons, L. I., et al. "Heterogeneity of the Filamentous Haemagglutinin of *Bordetella pertussis* Studied with Monoclonal Antibodies." J. Gen. Microbiol. 129 (1983): 2769-2778. PubMed: 6313862.
3. Alonso, S., et al. "Role of ADP-Ribosyltransferase Activity of Pertussis Toxin in Toxin-Adhesin Redundancy with Filamentous Hemagglutinin During *Bordetella Pertussis* Infection." Infect. Immun. 69 (2001): 6038-6043. PubMed: 11553541.

Support Provided by NIAID

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