

Product Specification Sheet

B. pertussis Fimbrae 2/3 protein

Cat# FIM235-N-10 Recombinant purified FIMBRIAE 2/3 (FHA) (B. pertussis), antigen grade **Size:** 10 ug

Bordetella pertussis causes whooping cough, a highly communicable disease which continues to be a public health concern despite high levels of vaccination with either whole-cell or acellular pertussis vaccines. In the last decade, a resurgence of pertussis. B. pertussis vaccine was first developed in 1920 using whole bacterium. In 1942, the whole-cell pertussis vaccine was combined with diphtheria and tetanus toxoids to generate the first DTP combination vaccine. Whole cell vaccines have some side effects. **Acellular pertussis vaccines** contain between one and five B. pertussis antigens: pertussis toxin (Ptx), filamentous hemagglutinin (FHA), pertactin (Prn), and fimbriae (Fim2 and Fim3). Many aspects of the pathogenesis of pertussis and vaccine correlates of protection are poorly understood. However, antibodies to Prn, Fim, and, to a lesser extent, Ptx appear to have a direct correlation with protection.

Fimbriae have been considered important vaccine components for many years in both whole-cell and acellular vaccines. B. pertussis expresses two serologically distinct fimbriae composed of either Fim2 (207-aa) or Fim3 (204-aa) major subunits which have molecular weights of 22,500 (207-aa) and 22,000, respectively. Antibody responses to Fim1-3 have been observed in human samples.

Source of Antigen

Fimbriae 2/3 were purified from B. pertussis d (>99%, ~22 kda). Fim2/3 is supplied in a buffer (0.05 M Tris, pH 8, and 0.15 M NaCl) (or see lot sp. conc on the vial).. This preparation is not toxig.

Store at -20oC or below and it is stable for at least 6-12 months.

Antibody reactivity

Fim2/3 reacts with human sera vaccinated with pertussis vaccine.

Stability: 6-12 months at -20oC or below.

Recommended Usage

Purified protein can be used for ELISA, Western, antibody titration or as control protein for pertussis vaccines.

References: Livery I (1987) Mol Microbiol. 1, 203-209; Parkhill J (2003) Nat. Gent. 35, 32-40; Mooi FR (1990) **FEMS Microbiol. Lett. 54, 327-331; Baughmann AI (2004)** Clin. Diagn.Lab. Immunol. 11:1045-1053; Hollander HO (2009) Clin. Diagn. Lab. Immunol. 11:1045-1053

*This product is for in vitro research use only.

Related material available from ADI

Recombinant PTX, FHA, pertactin, Antibodies and ELISA kits

Catalog#	ProdDescription
960-110-PHG	Human Anti-B. pertussis antigens (Pertussis toxin, FHA and LPS) IgG, 96 tests, Quantitative
960-120-PHG	Mouse Anti-B. pertussis antigens (Pertussis toxin, FHA and LPS) IgG ELISA kit, 5x96 tests, Quantitative
960-130-PMG	Mouse Anti-B. pertussis toxin/toxoid IgG ELISA kit, 2x96 tests, Quantitative
960-140-PHM	cat# changed to #960-140-PMM; Mouse Anti-B. pertussis IgM ELISA kit
960-140-PMM	Mouse Anti-B. pertussis toxin/toxoid IgM ELISA kit, 2x96 tests, Quantitative
960-150-PRG	Rabbit Anti-B. pertussis toxin/toxoid IgG ELISA kit, 2x96 tests, Quantitative
960-160-PRM	Rabbit Anti-B. pertussis toxin/toxoid IgM ELISA kit, 2x96 tests, Quantitative
960-170-PMG G	pig Anti-B. pertussis toxin/toxoid IgG ELISA kit, 2x96 tests, Quantitative
960-180-PMM G	pig Anti-B. pertussis toxin/toxoid IgM ELISA kit, 2x96 tests, Quantitative
960-200-PHA	Human Anti-B. pertussis antigens (Pertussis toxin, FHA and LPS) IgA ELISA kit, 96 tests, Quantitative
960-200-PHA	Monkey Anti-B. pertussis antigens (Pertussis toxin, FHA and LPS) IgA ELISA kit, 5x96 tests, Quantitative
960-210-PHG	Monkey Anti-B. pertussis antigens (Pertussis toxin, FHA and LPS) IgG ELISA kit, 5x96 tests, Quantitative
960-220-PHM	Human Anti-B. pertussis antigens (Pertussis toxin, FHA and LPS) IgM ELISA kit, 96 tests, Quantitative
960-220-PHM and LPS) IgM	Monkey Anti-B. pertussis antigens (Pertussis toxin, FHA ELISA kit, 5x96 tests, Quantitative
960-230-PGG	Mouse Anti-B. pertussis Pertactin IgG ELISA kit, 2x96 tests
960-240-PRG	Rabbit Anti-B. pertussis Pertactin IgG ELISA kit, 2x96 tests
960-250-PHG	Human Anti-B. pertussis Pertactin IgG ELISA kit, 5x96 tests
960-260-PMG	Monkey Anti-B. pertussis Pertactin IgG ELISA kit, 5x96 Tests
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