

Product Specification Sheet

Anti-B. pertussis/B.bronchiseptica LPS antibody

Cat. # PTOX41-M	Mouse Monoclonal Anti--B. pertussis/B.bronchiseptica LPS (Los-A) IgG unlabeled	SIZE: 100 ul
Cat. # PTOX41-F	Mouse Monoclonal Anti--B. pertussis/B.bronchiseptica LPS (Los-A) IgG_FITC conj.	SIZE: 100 ul

Pertussis toxin (PT) is a protein-based AB₅-type exotoxin produced by the bacterium *Bordetella pertussis*, which causes whooping cough. PT is involved in the colonization of the respiratory tract and the establishment of infection. PT may have a therapeutic role in treating a number of common human ailments, including hypertension, viral inhibition, and autoimmune inhibition.

A large group of bacterial exotoxins are referred to as "A/B toxins", in essence because they are formed from two subunits. The "A" subunit possesses enzyme activity, and is transferred to the host cell following a conformational change in the membrane-bound transport "B" subunit. Pertussis toxin is an exotoxin with six subunits (named S1 through S5—each complex contains two copies of S4). The subunits are arranged in A-B structure: the A component is enzymatically active and is formed from the S1 subunit, while the B component is the receptor-binding portion and is made up of subunits S2–S5. The subunits are encoded by ptx genes encoded on a large PT operon that also includes additional genes that encode Ptl proteins. Together, these proteins form the PT secretion complex.

B. pertussis expresses two forms of a rough-type lipooligosaccharide (LOS), which have been referred to as LOS A and LOS B. The two forms of LOS can be resolved as two distinct molecular weight species in silver stained sodium dodecyl sulfate-polyacrylamide gels of protease-treated *B. pertussis* cell lysates. The difference between the two forms of LOS has been shown to be due to three additional N-acetyl amino sugars in the core oligosaccharide moiety of LOS A that are not present in LOS B. The structure and biological activity of *B. pertussis* LOS are similar to those of LOSs of other gram-negative bacteria that contain lipid A and a core oligosaccharide moiety containing 2-keto-3-deoxyoctonate, exhibiting lethal toxicity in mice, pyrogenicity in rabbits, and mitogenicity in cell cultures.

Source of Antigen and Antibodies

Antigen	Purified <i>B. pertussis</i> LOS-A
Ab Host/type	Mouse, monoclonal IgG3 (#PTOX41-M) in PBS, pH 7.4, 0.05% azide at 1 mg/ml or see lot sp. concn
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40120 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Cat# PTOX41-F, Anti B. pertussis/B.bronchiseptica LPS (Los-A) IgG_FITC conj

Purified IgG was coupled to FITC at F/P ratio ~3:7. The antibody is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in either **lyophilized** (0.5 ml) or **liquid** form (0.5 mg/0.5 ml). Reconstitute powder in PBS in 0.5 ml to prepare 1 mg/ml solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:200-1:2000 for immunofluorescence.

Absorption Wavelength: 495 nm
Emission Wavelength: 528 nm

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
100 ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.05% azide
Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20oC and powder at 4oC or -20oC..
Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.
Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Antibody is suitable for ELISA or IF. Antibody dilution should be tested for a given application.

Specificity & Cross-reactivity

Antibodies are specific for *B. pertussis* LOS-A.

References: Caroff M (1990) J. Bacteriol. 172, 1121-1128; LeDur A (1980) J. Bacteriol. 143, 78-88; Li Z (1988) Inf. Immunity Infect. Immunity 56, 699-702; Pepler MS (1984) Infect. Immunity 43, 224-232

*This product is for In vitro research use only.

Related material available from ADI

Recombinant PTX, FHA, pertactin, Antibodies and ELISA kits

PTOX41M 120227A