Anti-Pertussis Toxin antibody, rabbit polyclonal

64-031　　100 μg

Shipping and Storage: Shipped at 4℃ or -20℃, and upon arrival, aliquot and store at -20℃.

Immunogen: Immunization was Initiated with toxoid and boosted with native toxin (BioAcademia 01-503)

Form: 1.0 mg/ml IgG fraction of antiserum in PBS- with 50% glycerol

Applications:

1. Western blotting　(1/2,000~1/10,000 dilution)
2. ELISA　(1/10,000~1/20,000 dilution)
3. Dot blotting (1/2,000~1/10,000 dilution)
4. Immunoprecipitation　(1/200~1/500 dilution)
5. Neutralising (Assay dependent)

Other applications have not been tested.

Background: Perrtussis toxin (PT) is a protein-based AB5-type exotoxin produced by *Bordeterra pertussis*. PT catalyzes the ADP-ribosylation of the α subunits of the heterotrimeric guanine nucleotide regulatory proteins Gi, Go, and Gt and prevents intracellular signal transduction involving the G proteins. PT consists of one moplecule of each S1 (26 kDa), S2 (22 kDa), S3 (22 kDa), S5 (12 kDa) and two molecule of S4 (12 kDa). This product was highly purified (>90% pure) from *Bordetella pertussis* strain Tohama by the method of Skelton & Wong[1]. Cytotoxicity of the PT was confirmed by morphological alteration of CHO cells after treatment with 0.1 ng/ml of PT (see the Figure below).

Data Link: Swiss-Prot Pertussis toxin subunit1, subunit2, subunit3, subunit4, subunit5

References: Alouf JE & Popoff MR (Ed.) The comprehensive Sourcebook of Bacterial Protein Toxins 3rd Ed. Academic Press (2006)

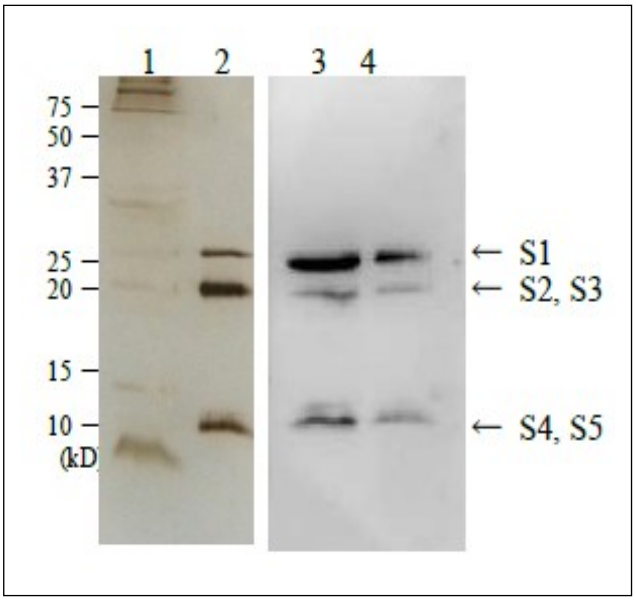

Fig.1. Detection of perussis toxin in culture medium of Bordetera pertussis strain Tohama by Western blotting using anti-perussis toxin antibody.

1. Culture medium of Bordetera pertussis. SDS-PAGE, silver-stained
2. Purified pertussis toxin (200ng). SDS-PAGE, silver-stained
3. Western blot of culture medium of Bordetera pertussis as in 1.
4. Western blot of purified pertussis toxin (10 ng)

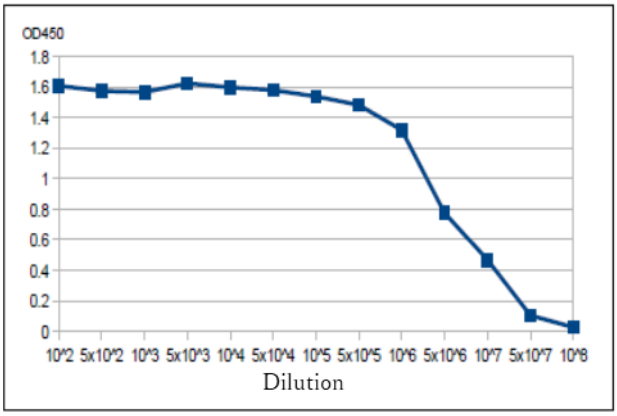

Fig.2. Titration of antibody reactivity of anti-Pertussis antiserum by direct ELISA

Plate was coated with 100 μg of pertussis toxin per well and 100 μl of the antiserum at the indicated dilution was added to each well and incubated. After washing, goat anti-rabbit-IgG conjugated with HRP was added as 2nd antibody. Color was developed with TMB as substrate.

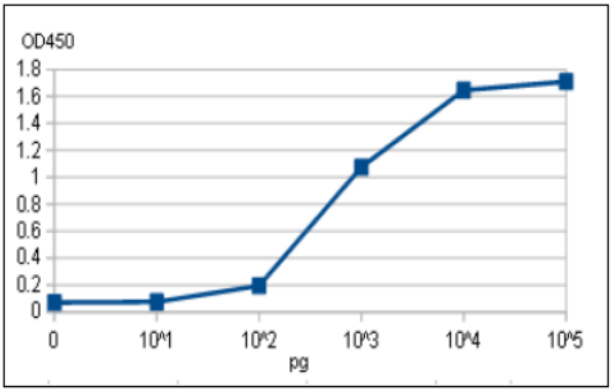

Fig.3. Titration of pertussis toxin by direct ELISA using anti-pertussis toxin antiserum

ELISA plate is coated with indicated amounts of pertussis toxin per well. Antiserum was used at 1/12,500 dilution. ELISA was performed as in Fig.2. Dynamic range was 100 pg to 10 ng under these conditions.