Bio Academia
Manufacturer

AS ONE

Anti-Pertussis Toxin antibody, rabbit serum

64-030 100 µl

Function: 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 molecules of S4 (12 kDa). This product was highly purified (>90% pure) from Bordetella pertussis strain Tohama. Cytotoxicity of the PT was confirmed by morphological alteration of CHO cells after treatment with 0.1 ng/ml of PT.

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. Neutralizing (Assay dependent)
Other applications have not been tested.

Specification
Immunogen: Immunization was Initiated with toxoid and boosted with native toxin
Form: Whole rabbit antiserum added with 0.09% sodium azide
Storage: Shipped at 4°C. Upon arrival, spin down and store at -20°C.
Data Link: Swiss-Prot: Pertussis toxin

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

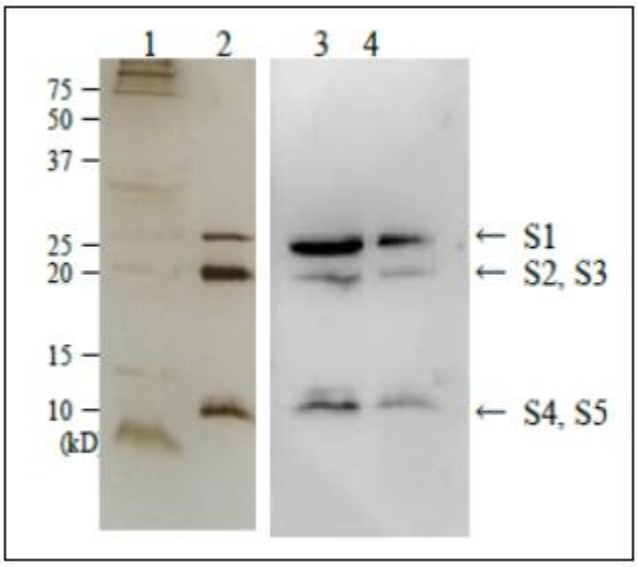

Fig.1. Detection of perussis toxin in culture medium of Bordetera pertussis strain Tohama by Western blotting using anti-perussis toxin antibody
1. Culture medium of Bordetera pertussis. SDSPAGE, silver-stained
2. Purified pertussis toxin (200 ng). SDS-PAGE, silver-stained
3. Western blot of culture medium of Bordetera pertussis as in 1
4. Western blot of purified pertussis toxin (10 ng)
The toxin consists of five subunits as indicated by S1 to S5.

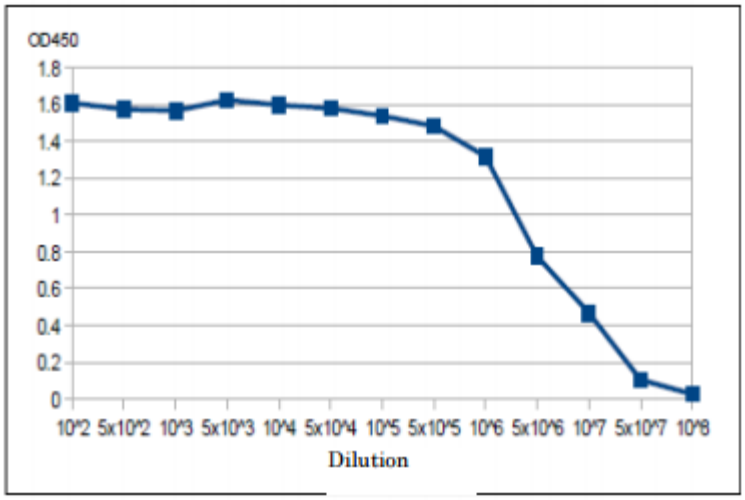

Fig.2. Titration of antibody reactivity of anti-Pertussis antiserum by direct ELISA
Plate was coated with 100 µg of pertussis toxin per well and 100 µl of the antiserum at the indicated dilution was added to each well and incubated. After washing, goat anti-rabbit-IgG conjugated with HRP was added as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

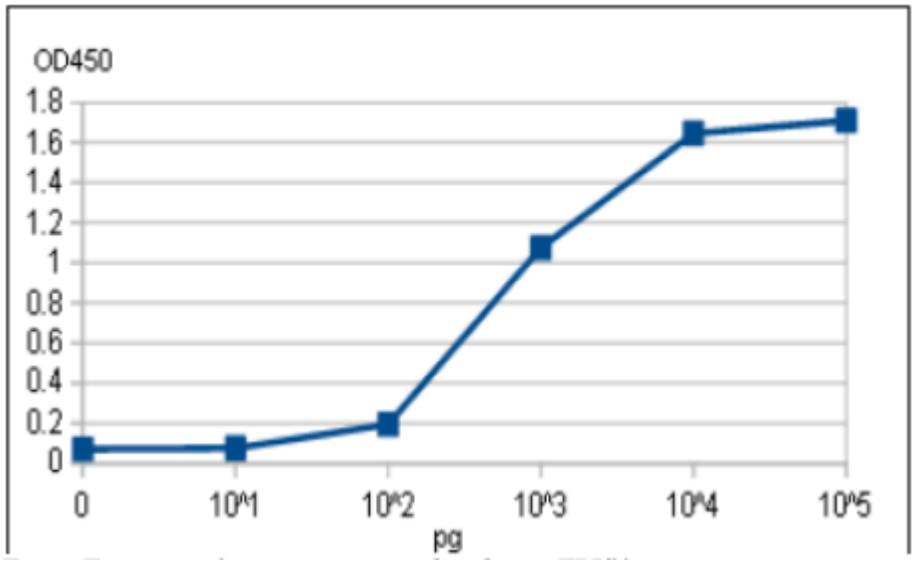

Fig.3. Titration of pertussis toxin by direct ELISA using anti-pertussis toxin antiserum
ELISA plate was coated with indicated amounts of pertussis toxin per well. Antiserum was used at 1/12,500 dilution. ELISA was performed as in Fig.2. Dynamic range was 100 pg to 10 ng under these conditions.