Anti-CPE (*Clostridium perfringens* Enterotoxin) antibody, rabbit polyclonal

64-052 200 µg

Storage: Ship at 4°C and store at -20°C. Do not freeze.

Immunogen: Highly purified enterotoxin from *Clostridium perfringens,* strain NCTC8239 (BioAcademia 01-509)

Reactivity:. *Clostridium perfringens* enterotoxin.(food-poisoning strains)

Applications:

1. Western blot (1/1,000-1/2,000)
2. Dot blot (1/20,000- 1/100,000)
3. Immunoprecipitation (1/200-1/500)
4. ELISA (1/1,000)

Form: Purified IgG, 4 mg/ml in PBS, 50% glycerol. Filter sterilized. Azide- and carrier free.

Background: *Clostridium perfringens* enterotoxin (CPE) is a protein toxin produced by majority of *C. perfringens* strains (type A, C, D and E strains) responsible for food poisoning and gastrointestinal disease. CPE destroys c animals by its phospholipase activity after binding to the n proteins, which are components of tight junction of epithelial cell membrane. CPE binds to Claudins 3, 4, 6, 7, 8 and 14, but not to Claudins 1, 2, 5 and 10.

Fig.1 Nondenaturing polyacrylamide gel electrophoresis of CPE

For detail, refer to Fujita K *et al* "Clostridium perfringens enterotoxin binds to the second extracellular loop of claudin-3,a tight junction integral membrane protein." *FEBS Lett* **476**: 258-261 (2000) PMID: 10913624

Data Link:UniProtKB : P01558 (ELTB_CLOPE)

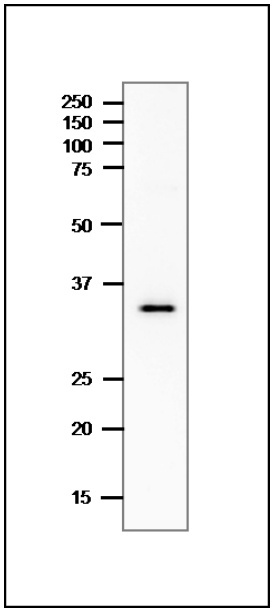

Fig.1 Western Blot of CPE in the crude extract of *C. perfringens.*

12.5% SDS-PAGE

Blotting 15V, overnight in wet system

Anti-CPE antibody was used at 1µg/ml

Second antibody, goat anti-rabbit IgG H& L (HRP)(ab97051) was used at 1/20,000. Visualized with BioRad ECL system

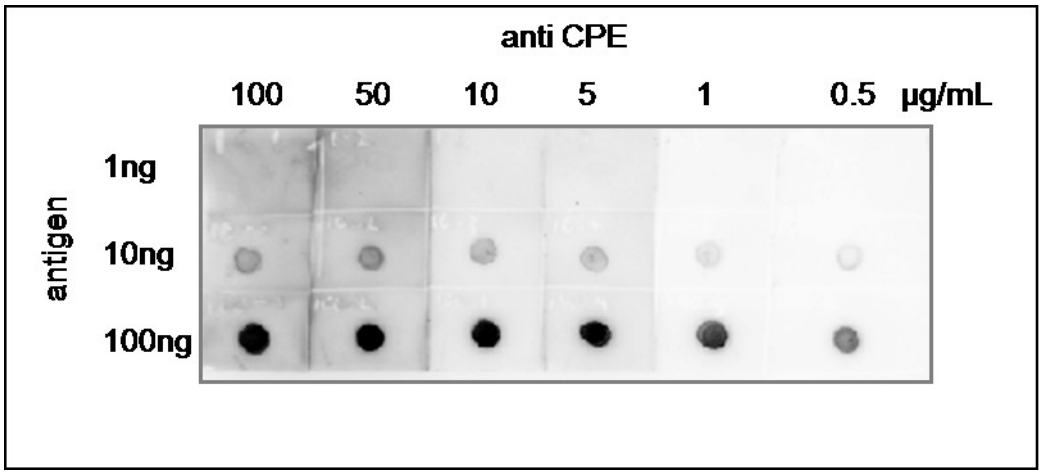

Fig.2　Dot blot of CPE with anti-CPE antibody.

Indicated amounts of purified *C.perfringence* enterotoxin were spotted on nitrocellulose membrane and reacted with the indicated concentrations of anti-CPE antibody for 60 min. As the second antibody, goat anti-rabit IgG H & L (HRP) (ab97051) was reacted at 1/20,000 dilution for 60 min.

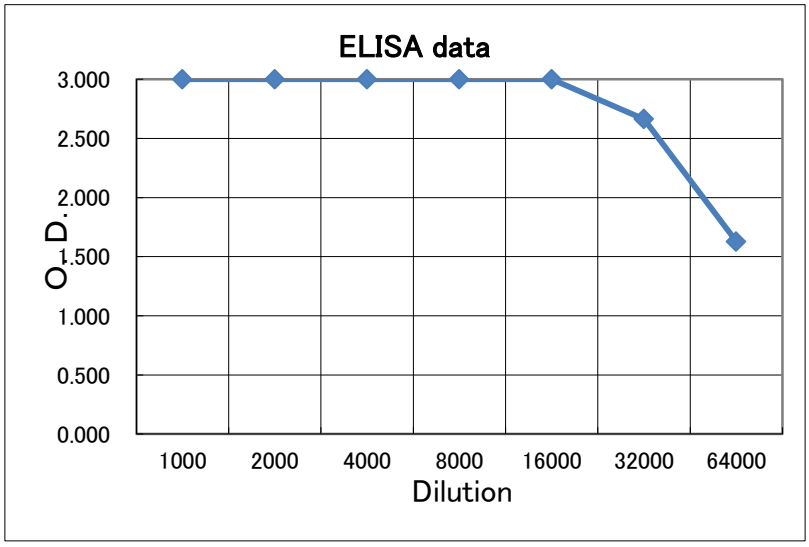

Fig.3. Titration of the anti-CPE antibody activity of the antibody by Indirect ELISA

Plate was coated with 0.2 µg of *C.perfringens* Enterotoxin (BioAcademia 01-509) per well and 100 µl of anti-*C.perfringens* Enterotoxin antibody at the indicated dilution was added to each well and incubated. After washing, goat anti-rabbit-IgG conjugated with HRP was added as a secondary antibody. Color was developed with TMB as substrate. After washing, goat anti-rabbit-IgG conjugated with HRP (ab97051) was added as a secondary antibody. Color was developed with TMB as substrate. Optical density (O.D.) was measures at 490 nm.

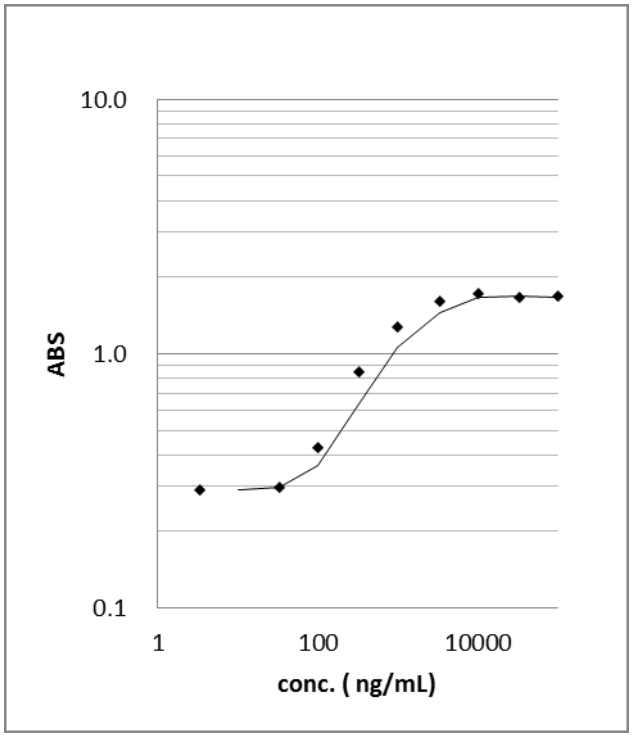

Fig.4. Titration of enterotoxin of *C. perfringens* by indirect ELISA using th anti-CPE antibody.

ELISA plate was coated with 100 μl of indicated concentration of *C. perfringens* enterotoxin per well. The anti-CPE antibody was used at 1/1,000 dilution. ELISA was performed as in Fig.2.