Anti-Verotoxin (*E. coli*) / Shiga Toxin (*S. dysenteriae*) antibody, rabbit serum

64-025　100 µl

Shipping and Storage temperature : Ship at 4℃, aliquot and store at -20℃.

Reactivity: VT1 and VT2 of *E. coli* VTEC strain and Shiga toxin of *Shigella dysenteriae*.

Immunogen: Initial immunization by VT1 toxoid and boostered by VT1 toxin.

Applications:

1) Western blotting (2,000 fold dilution)

2) Immunoprecipitation

3) ELISA　Other applications have not been tested.

Form: Rabbit antiserum added with 0.09% sodium azide.

Background: Vero toxins, VT1 and VT2 are produced by Vero toxin producing *E.coli* (VTEC) or Entrohaemorrhagic *E. coli* (EHEC) and have lethal activity to Vero cells. The primary structure of VT1 is identical or nearly identical to Shiga toxin (Stx) produced by *Shigella dysenteriae* serotype 1 and also called Slt 1 (Shiga-like toxin 1). VT is composed from one A subunit and five B subunits. Some *E. coli* strains produce both VT1 and VT2, and they share sequence identity of 55 %.

Data link: GenBank　M16625　Shiga-like toxin I subunit A and subunit B

UniProtKB/Swiss-Prot Q9FBI2 Shiga toxin subunit A

UniProtKB/Swiss-ProtQ7BQ98 Shiga toxin subunit B

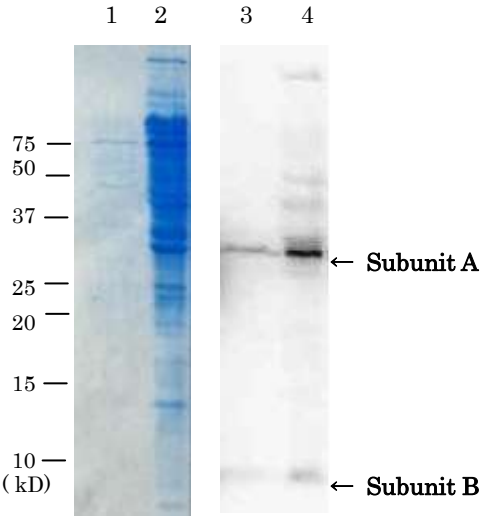

Fig.1.Detection of VT1 by western blotting with anti-VT1 antibody.

1. SDS-PAGE of culture medium of VTEC,
2. SDS-PAGE of crude extracts of VTEC cells,
3. Western blotting of culture medium of VTEC
4. Western blotting of crude extracts of VTEC cells.

Ani-VT1 antibody was used at 1/2,000 dilution

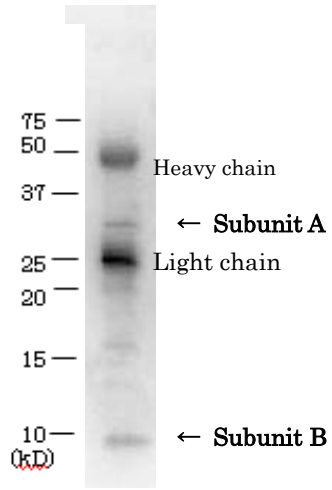

Fig. 2. Immunoprecipitation of VT1 from culture medium of VTEC with anti-VT1 antibody. Arrows shows subunit A and subunit B of VT1. Heavy chain and Light chain indicate those of IgG.

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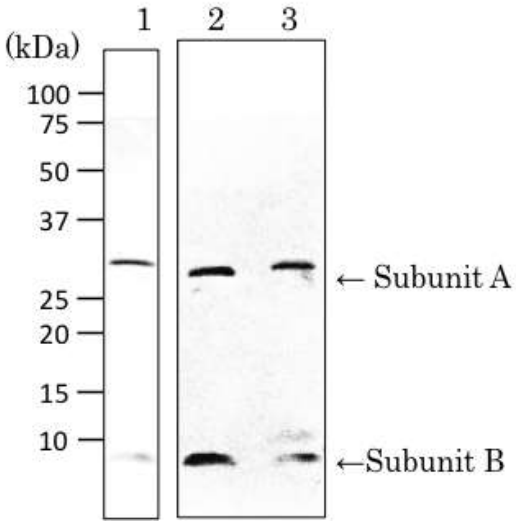

Fig.3. Detection of VT1 and VT2 by Western blotting with ant-Vero Toxin .

1. Culture medium of *E. coli* O157:H7
2. Purified VT1
3. Purified VT2

Arrow shows subunit A and subunit B.

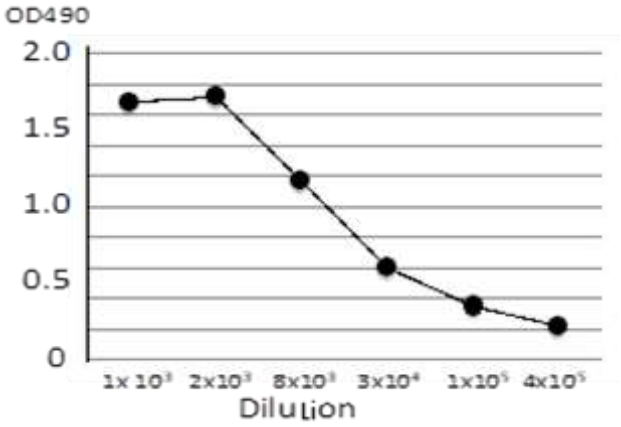

Fig.4. Titration of antibody reactivity of anti-Vero Toxin by indirect ELISA using crude extract of *E.coli* O157:H7

The wells of plate were coated with crude extract of O157:H7 (100 µl, 1 µg/ml). After blocking with 5% skim milk, 100 µl of antibody at the indicated dilution was added to the each well. HRP-conjugate goat anti-mouse IgG (100 µl、x2000 dilution) was added. Color was developed with orthophenylenediamine as substrate. Optical densities (OD) measured at 490nm.