Anti- *Vibrio parahaemolyticus* TDH / TRH Toxin antibody, mouse monoclonal (vp-01)

64-013　　100 µg

Shipping and Storage: Shipped at 4℃ or -20℃. Store at -20℃. Do not freeze.

Immunogen: Culture supernatant of *V. parahemolyticus*

Form: 0.5 mg/ml in PBS- with 50% glycerol, filter sterilized.

Purity: IgG, affinity-purified with Protein A/G mix

Isotype: mouse IgG1

Reactivity: Reacts with *V. parahemolyticus* TDH and TRH toxins

Applications:

1. Western blotting　(1/500~1/1,000)
2. ELISA　(assay dependent)

This antibody is useful for detecting food-poisoning V. hemolyticus strains.

Backgroud: Many *Vibrio parahaemolyticus* strains isolated as a cause of food poisoning, produce toxin called hemolysin, and this is the main cause of illness. Two kinds of hemolysins, **T**hermo-resistant **D**irect **H**emolysin (TDH) and **T**DH **R**elated **H**emolysin (TRH), are known. TDH is the heat labile toxin protein of molecular weight 21.3 kDa (189 aa). Homology of TRH (21.1 kDa, 189 aa) with TDH is about 60%, and shows partial antigenic similarities.

Data Link:　UniProtKB: P19249 (Thermostable direct hemolysin1),
Q769J9 (TDH related hemolysin)

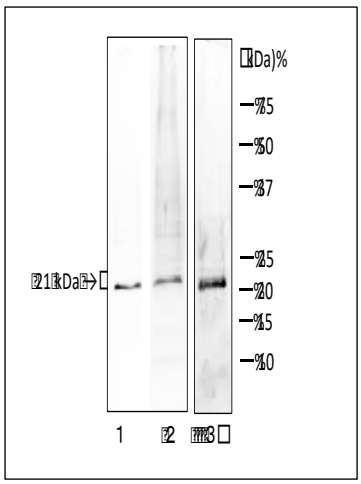

Fig.1. Detection of *V. parahaemolyticus* TDH and TRH by Western blotting with MAb (vp-01)

1.Culture medium of *V. parahaemolyticus* (trh$^+$)
2.Culture medium of *V. parahaemolyticus* (tdh$^+$)
3.Culture medium of *V. parahaemolyticus* (trh$^+$)

MAb (vp-01) was used at 1/1,000 dilution) in lanes 1 and 2.
Polyclonal antiTRH antibody (BioAcademia 64-015) was used at 1/1,000 dilution in lane 3.

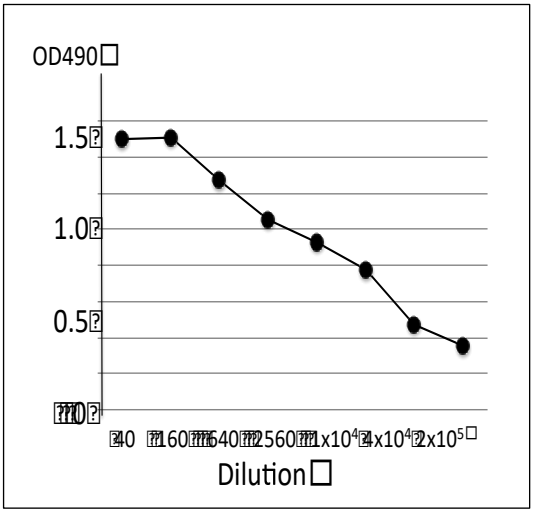

Fig.2. Titration of antibody reactivity of MAb (vp-1) by indirect ELISA, using culture medium of *V. parahaemolyticus* trh⁺

The wells of plate were coated with culture medium of *V. parahaemophilus* trh⁺(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 (100µl、x2000 dilution) was added. Color was developed with orthophenylenediamine as substrate. Optical densities (OD) measured at 490nm.

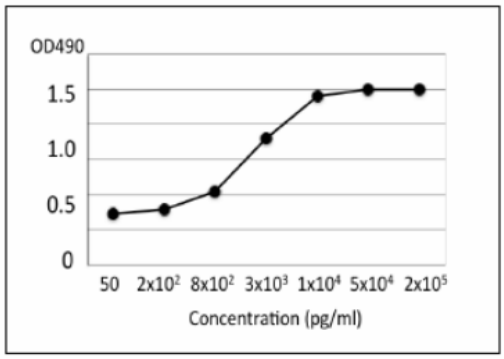

Fig.3. Indirect ELISA of TDH in extract of *V. papahaemolyticus* trh⁺ with MAb (vp-01)

ELISA plate was coated with indicated amounts of the extract of *V, papahaemolyticus* trh⁺. MAb (vp-01) was used at 1/500 dilution. ELISA was performed as in Fig.2.

Table 1. Reactivity of MAb (vp-01) with various food poisoning bacteria.

	ELISA	WB
Vibrio parahaemolyticus (NBRC12711)	+	21K
Other 3 isolated strains	+	21K
Salmonella Enteritidis	−	−
E. coli 0157:H7	−	
Staphylococcus aureus	−	
Bacillus cereus	−	
Partially purified TDH	+	

TDH: Thermostable direct hemolysin

Reference: There has been no publication using this antibody.

Please let us know when your research using this antibody is published. We will offer one vial of our antibody as compliment.