

Anti-*Escherichia coli* LT toxin Subunit B antibody, mouse monoclonal

64-023 100 µg

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

Immunogen: Crude extract of *Escherichia coli* (ETEC LT⁺) cells

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

Purity: IgG2a, affinity-purified with Protein A

Isotype: mouse IgG2a kappa

Reactivity: Reacts with subunit B of *E. coli* LT toxin and *V. Cholera* CT toxin.

Applications:

1. Western blotting (1/500~1/5,000)
2. ELISA (assay dependent)

This antibody is useful for detecting food poisoning Enterotoxigenic *E. coli* (ETEC)

Background: Pathogenic *Escherichia coli* is one of the major causative agents of food poisoning. One group of them, enterotoxigenic *E. coli* (ETEC) produces some toxins. Heat labile enterotoxin (LT) produced by ETEC is similar to cholera toxin (CT). The identity of the amino acid sequences of LT and CT is about 80% and both toxins are consist of one subunit A and five subunit B. LT continuously activates adenylate cyclase and elevated level of cAMP inhibits absorption of Na⁺ by intestinal villi cells, and stimulates secretion of Cl⁻ by villi and crypt cells, thus causing diarrhea. Subunit A possesses signal peptide of the amino acids 1-18, and the mature form consists of 19-258 amino acids (MW: 28.8 kDa). Subunit B has signal peptide of 1-21, and the mature form consists of 22-124 amino acids (MW: 11.8 kDa). The holotoxin MW is 86.4 kDa.

Data Link: UniProtKB: [P0CK94](https://www.uniprot.org/entry/P0CK94) (Heat-labile enterotoxin B chain)

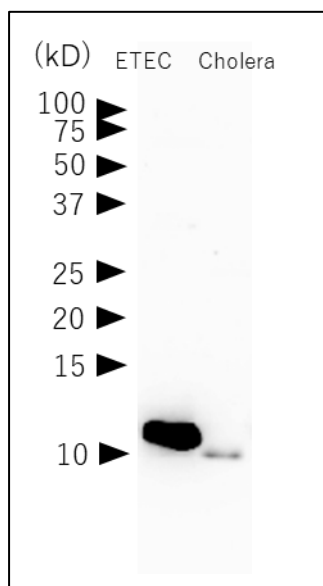


Fig.1. Detection of LT toxin in crude extract of *E. coli* ETEC strain and Cholera toxin (#01-511) by Western blot.
The anti- LT toxin subunit B antibody was used at 1/1,000 dilution.

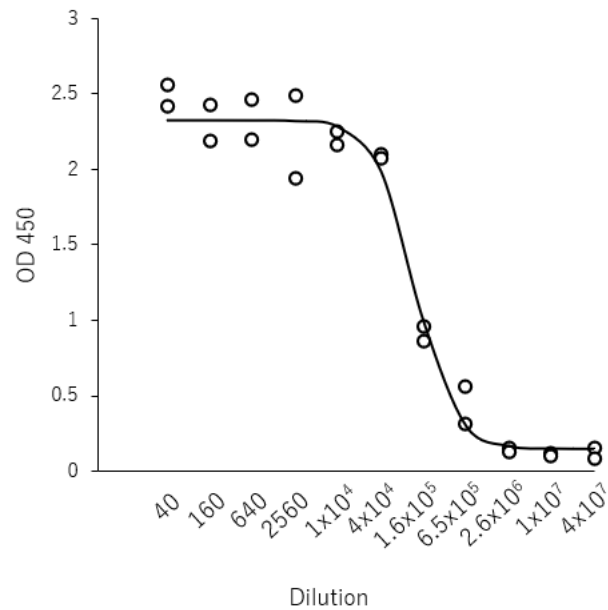


Fig.2. Titration of antibody reactivity of MAb by indirect ELISA using crude extract of ETEC cells.

The wells of plate were coated with crude extract of *E. coli*. After blocking with 5% skim milk, 100 µl of antibody at the indicated dilutions was added to the each well. HRP-conjugated goat anti-mouse IgG (100µl, x 2000 dilution) was added. Color was developed with orthophenylenediamine as substrate. Optical densities (OD) measured at 450nm.

Reference: There has been no publication using this antibody.

Related Product: 64-020 [anti-LT \(E.coli\)antibody, rabbit serum](#)

64-022 [anti-LT \(E.coli\) subunit A antibody, mouse monoclonal](#)