

anti-Diphtheria Toxin antibody, rabbit serum

64-010

100 µl

Storage: Store at 4°C for short term. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.

Immunogen: Purified nontoxic mutant Diphtheria toxin CRM197 (Ref1, Product #01-515)

Form: Whole antiserum sterilized by filtration. (IgG purified product; #64-011)

Specificity: React with Diphtheria toxin as well as its CRM197 mutant toxin

Applications:

1. Westernblotting (1/2,000 dilution).
2. ELISA (1/2,000~1/7,000 dilution. Could detect 1 ng or less of the toxin)
3. Immunoprecipitation (1/200~1/1,000 dilution, depending on assay)
4. Dotblotting (1/1,000 dilution. Could detect 1 ng or less of the toxin)

Background: Diphtheria toxin(535 aa,58k Da),is an exotoxin secreted as a proenzyme by *Corynebacterium diphtheriae*, the pathogen bacterium that causes diphtheria. The toxin genes encoded by a bacteriophage. The proenzyme undergoes proteolytic nicking and reduction of disulfide bond, giving rise to subunit A (21kDa) and B (37kDa). Subunit B (C-terminal) recognizes cellular receptor, HB-EGF receptor, and subunit A (N-terminal) catalyzes the ADP-ribosylation of eukaryotic E longation factor-2 (eEF2), in activating this protein.

DataLink: UniProtKB [Diphtheria](#)

References:

1. Uchida T. et al. "Diphtheria toxin and related proteins.
2. Reconstitution of hybrid "diphtheria toxin" from nontoxic mutant proteins." J. Biol. Chem. 248:3851-3854(1973) PMID:4196586
3. Pappenheimer A. "Diphtheriatoxin." Annu Rev Biochem 46: 69-94 (1977) PMID:2004

Related Products: # 64-011 anti- Diphtheria Toxin antibody (IgG purified) #01-515 Diphtheria toxin mutant (CRM197), #

01-517 Diphtheria toxin

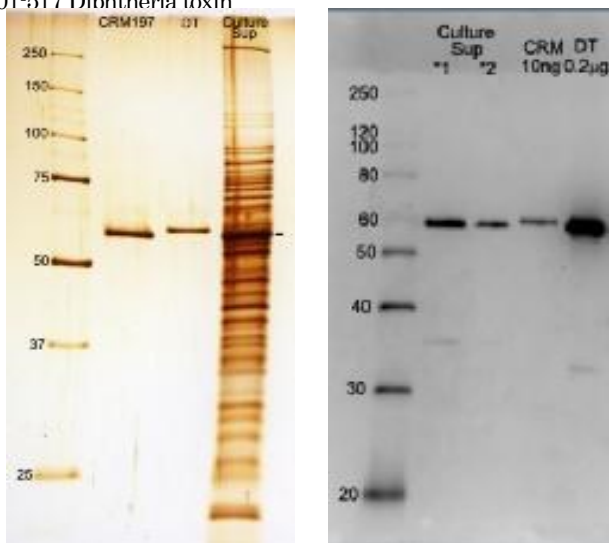


Figure1 (left): SDS-PAGE analysis of culture medium of *Corynebacterium Diphtheria*. Lane1: Protein size markers (kDa). Lane2: Purified Diphtheria CRM197 mutant protein. Lane3: Purified Wild-type Diphtheria toxin. Lane4: Culture medium of *Corynebacterium Diphtheria*. Silver-staining

Figure2 (right): Western blotting of culture medium of *Corynebacterium Diphtheria*. Lane1: Protein size markers (kDa). Lane2(*1): Crude culture medium of *Corynebacterium Diphtheria*. Lane3 (*2): The two-fold diluted culture medium. Lane4 :Purified CRM197 (10 ng). Lane5: Purified Diphtheria toxin (200ng). Western blotting with this antibody at 1/2000 dilution.

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.