

Anti-Diphtheria Toxin antibody (rabbit serum)

64-010 100 ul

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

Applications

1. Western blot (1/2,000 dilution)
2. ELISA (1/2,000 ~ 1/7,000 dilution. Detected 1 ng or less of the toxin)
3. Immunoprecipitation (1/200 ~ 1/1,000 dilution, depends on assay)
4. Dot blot (1/1,000 dilution. Detected 1 ng or less of the toxin)

Specification

Immunogen: Purified nontoxic mutant Diphtheria toxin CRM 197 (Ref. 1, Product #01-515)

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

Form: Whole antiserum sterilized by filtration.

Storage: Shipped at 4°C and store at -20°C or below

Data Link: UniProt KB [Diphtheria](#)

References:

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

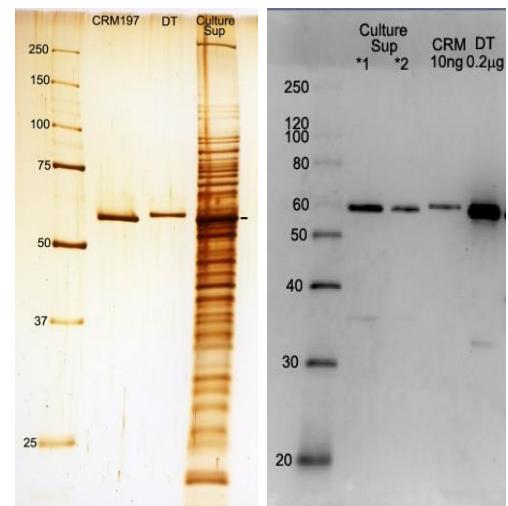


Figure 1 (left): Silver Staining, SDS-PAGE analysis of culture medium of *Corynebacterium Diphtheria*.

Lane 1: Protein size markers (kDa). Lane 2: Purified Diphtheria CRM197 mutant protein. Lane 3: Purified Wild-type Diphtheria toxin. Lane 4: Culture medium of *Corynebacterium Diphtheria*.

Figure 2 (right): Western blot of culture medium of *Corynebacterium Diphtheria*. Lane 1: Protein size markers (kDa). Lane 2 (*1): Crude culture medium of *Corynebacterium Diphtheria*. Lane 3 (*2): The two-fold diluted culture medium. Lane 4: Purified CRM197 (10 ng). Lane 5: Purified Diphtheria toxin (200 ng). Western blotted with this antibody at a 1/2000 dilution.

Related Products: #01-515 Diphtheria toxin mutant (CRM197) and #01-517 Diphtheria toxin

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