

Anti-alpha-Toxin [3A4D10] Standard Size Ab02052-10.0

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgG1, Kappa

Clone Number: 3A4D10

Alternative Name(s) of Target: PLC; Phospholipase C; Zn-metallo phospholipase C; Alpha-toxin; Hemolysin; Lecithinase; Phosphatidylcholine cholinephosphohydrolase; α -Toxin

UniProt Accession Number of Target Protein: Q0TV31

Published Application(s): NTRL, WB, ELISA

Published Species Reactivity: Clostridium perfringens

Immunogen: The original antibody was generated by immunizing BALB/c mice with an immunogenic toxoid prepared by incubating the alpha toxin with formaldehyde.

Specificity: This antibody binds the alpha toxin of Clostridium perfringens. It specifically recognizes and binds the epitope 'ARGFAK' of the toxin.

Application Notes: Alpha toxin is an exotoxin, a type of bacterial haemolysin that attack blood cell membranes and cause cell rupture. Alpha toxin is an essential virulence factor in gas gangrene and causes myonecrosis in infected tissues. ELISA was used to identify the specific clones binding to alpha-toxin and epitope mapping of the antibody. 3A4D10 can even recognize denatured toxin in a western blot assay. This antibody is capable of neutralizing the toxin in vitro and in vivo assays (PMID: 1718874). Only immunization with amino acids 247-370 of the Clostridium perfringens alpha toxin induced protection against the lethal effects of the toxin. The toxin plays a major role in pathogenesis of gas gangrene (PMID: 825650). Humanized version derived from its murine parent showed higher binding affinity (PMID: 7716162).

Antibody First Published in: Logan et al. Epitope Mapping of the Alpha-Toxin of Clostridium perfringens. Infect Immun. (1991); 59(12): 4338-4342. [PMID:1718874](#)

Note on publication: Describes the generation and epitope mapping of the antibody.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -

20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.