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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-DPGA anthrax [4C] Standard Size Ab03882-10.0

Isotype and Format: Human IgG1, Kappa

Clone Number: 4C

Alternative Name(s) of Target: DPGA; capsular antigen; γ DPGA; gamma DPGA; poly-gamma-d-glutamic acid; poly- γ -d-glutamic acid; antiphagocytic polypeptide capsule

UniProt Accession Number of Target Protein:

Published Application(s): in vivo, neutralize, ELISA

Published Species Reactivity: Bacillus anthracis

Immunogen: The original antibody was generated by immunizing a chimpanzee with fragmented peptides of poly- γ -D-glutamic acid (γ DPGA) capsule of B. anthracis conjugated with either B. anthracis recombinant protective antigen (rPA) or tetanus toxoid (TT).

Specificity: This antibody specifically binds the poly- γ -D-glutamic acid (γ DPGA) capsule of Bacillus anthracis. Bacillus anthracis is surrounded by an antiphagocytic polypeptide capsule composed of poly γ -d-glutamic acid (γ DPGA). The γ DPGA capsule shields the vegetative form of B. anthracis from agglutination by monoclonal antibodies to its cell wall polysaccharide. γ DPGA has been identified recently as a potential target for vaccine development. Bacillus anthracis is a spore-forming bacterium and a causative agent for Anthrax, which is a highly lethal infectious disease in human and poses a great threat as an emerging bioterror agent.

Application Notes: The binding characterization of this antibody to γ DPGA of Bacillus anthracis was done using ELISA. The binding affinity of the antibody was measured using surface plasmon resonance. It was reported that the IgG1 version of this antibody binds 10-mer peptide of γ DPGA with a binding affinity of $K_d = 0.2$ nM. It was reported that a single 30- μ g dose of this antibody when given to BALB/c mice 18 h before challenge conferred about 50% protection against a lethal intratracheal spore challenge by the virulent B. anthracis Ames strain. When given 8 h or 20 h after challenge, this antibody provided significant protection against lethal infection (PMID: 21187383). This antibody can be used in treatment of infections with antibiotic-resistant strains (PMID: 22069754).

Antibody First Published in: Chen et al. Pre- and postexposure protection against virulent anthrax infection in mice by humanized monoclonal antibodies to Bacillus anthracis capsule. Proc Natl Acad Sci U S A. 2011 Jan 11; 108(2): 739-744. [PMID:21187383](#)

Note on publication: Describes the generation of two antibodies against B. anthracis γ DPGA and evaluates their capacity to protect mice against lethal intratracheal spore challenge.

Product Form

Size: 100 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.