



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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## Anti-DPGA anthrax [4C] Bulk Size Ab03882-21.0-BT

This antibody does not have a J-chain and therefore presents as a hexamer, rather than a pentamer.

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**Isotype and Format:** Mouse IgM, Kappa

**Clone Number:** 4C

**Alternative Name(s) of Target:** DPGA; capsular antigen;  $\gamma$ DPGA; gamma DPGA; poly-gamma-d-glutamic acid; poly- $\gamma$ -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- $\gamma$ -D-glutamic acid ( $\gamma$ 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- $\gamma$ -D-glutamic acid ( $\gamma$ DPGA) capsule of Bacillus anthracis. Bacillus anthracis is surrounded by an antiphagocytic polypeptide capsule composed of poly  $\gamma$ -d-glutamic acid ( $\gamma$ DPGA). The  $\gamma$ DPGA capsule shields the vegetative form of B. anthracis from agglutination by monoclonal antibodies to its cell wall polysaccharide.  $\gamma$ 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  $\gamma$ 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  $\gamma$ DPGA with a binding affinity of  $K_d = 0.2$  nM. It was reported that a single 30- $\mu$ 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](https://pubmed.ncbi.nlm.nih.gov/21187383/)

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

## Product Form

**Size:** 500  $\mu$ g Purified antibody in bulk size.

**Purification:** Affinity Purified using a recombinant lectin column

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without

added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.