

Anti-DPGA anthrax [F24F2] Standard Size Ab03885-15.0

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

Isotype and Format: Human IgM, Kappa

Clone Number: F24F2

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

UniProt Accession Number of Target Protein:

Published Application(s): ICC, ELISA, IHC

Published Species Reactivity: Bacillus anthracis

Immunogen: The original antibody was generated by immunizing BALB/c mice with B. licheniformis γDPGA in combination with CD40 agonist antibody.

Specificity: This antibody specifically binds the poly-γ-D-glutamic acid (γDPGA) capsule of Bacillus anthracis. Bacillus anthracis is surrounded by an antiphagocytic polypeptide capsule composed of poly γ-d-glutamic acid (γDPGA). The γDPGA capsule shields the vegetative form of B. anthracis from agglutination by monoclonal antibodies to its cell wall polysaccharide. γDPGA 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: This antibody was used for development of a quantitative capture ELISA for PDGA (PMID: 18195035). A 50:50 mixture of PDGA antibodies F24F2 and F26G3 was used in the development of an antigen capture ELISA with a sensitivity of approximately 9 ng/ml of serum after a 1/40 dilution and 2.25 ng/ml for a 1:10 dilution (PMID: 19506008). The HRP or Alexa Fluor 555 labelled antibody was also used in the immunohistochemical staining of γDPGA in mouse liver and spleen tissues after they were injected with 500, 100, or 20µg of γDPGA and tissues were harvested on days 1, 2, 4, and 8 (PMID: 18195035). This antibody was also used in the cellular localization of γDPGA in mouse liver (PMID: 18195035).

Antibody First Published in: Kozel et al. MAbs to Bacillus anthracis capsular antigen for immunoprotection in anthrax and detection of antigenemia. Proc Natl Acad Sci U S A. 2004 Apr 6; 101(14): 5042-5047. [PMID:15051894](#)

Note on publication: Describes the generation of two antibodies against B. anthracis γDPGA and evaluates their capacity to provide protection in pulmonary mouse model of anthrax.

Product Form

Size: 50 µg Purified antibody.

Purification: Affinity Purified using a recombinant lectin column

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.