



# Anti-B. anthracis Edema Factor Polyclonal antibody (DPAB3566)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Product Overview</b>	Polyclonal Antibody to Anthrax Edema Factor, which was raised against a synthetic peptide corresponding to 16 amino acids near the carboxy terminus of the Anthrax edema factor protein.
<b>Target</b>	B. anthracis Edema Factor
<b>Immunogen</b>	Anthrax Edema Factor Peptide
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	B. anthracis
<b>Purification</b>	Affinity chromatography purified via peptide column
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	ELISA
<b>Size</b>	100 µg
<b>Buffer</b>	Antibody is supplied in PBS containing 0.02% sodium azide
<b>Preservative</b>	0.02% Sodium Azide
<b>Storage</b>	Stored at 4°C, stable for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

## BACKGROUND

## Introduction

Anthrax infection is initiated by the inhalation, ingestion, or cutaneous contact with *Bacillus anthracis* endospores. *B. anthracis* produces three polypeptides that comprise the anthrax toxin: protective antigen (PA), lethal factor (LF), and edema factor (EF). PA binds to two related proteins on the cell surface; these are termed tumor epithelial marker 8 (TEM8)/anthrax toxin receptor (ATR) and capillary morphogenesis protein 2 (CMG2), although it is still unclear which is physiologically relevant. Following PA binding to its receptor, PA is cleaved into two fragments by a furin-like protease. The bound fragment binds both LF and EF; the resulting complex is then endocytosed which allows the translocation of LF and EF into the cytoplasm. EF is a calmodulin and  $\text{Ca}^{++}$ -dependent adenylate cyclase responsible for the edema seen in the disease. It is thought to benefit the *B. anthracis* bacteria by inhibiting cells of the host immune system.

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## Keywords

Anthrax Edema Factor; Anthrax EF; Adenylyl cyclase; Anthrax edema toxin adenylate cyclase component; ATP pyrophosphate lyase; *Bacillus anthracis* EF; Calmodulin sensitive adenylate cyclase; Cya; Edema factor; EF; Bacteria; Firmicutes; Bacilli; Bacillales;

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