

Datasheet for 600-401-Y19

Anthrax Edema Factor Antibody

Overview

Description:	Anti-Anthrax Edema Factor (RABBIT) Antibody - 600-401-Y19
Item No.:	600-401-Y19
Size:	100 µg
Applications:	ELISA
Reactivity:	Bacillus sp.
Host Species:	Rabbit

Product Details

Background:	Anthrax infection is initiated by the inhalation, ingestion, or cutaneous contact with <i>Bacillus anthracis</i> endospores. <i>B. anthracis</i> 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 Ca ⁺⁺ -dependent adenylate cyclase responsible for the edema seen in the disease. It is thought to benefit the <i>B. anthracis</i> bacteria by inhibiting cells of the host immune system.
Synonyms:	Anthrax Edema Factor Antibody, Calmodulin-sensitive adenylate cyclase, ATP pyrophosphatase, EF, pxo1_122, Adenylyl cyclase, Anthrax edema toxin adenylate cyclase component, Edema factor, cya, pXO1-122, BXA0141, GBAA_pXO1_0142, Plasmid pXO1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	cya
Reactivity:	Bacillus sp.

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Anthrax Edema Factor antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to 16 amino acids near the C-terminus of the Anthrax edema factor protein.
Purity/Specificity:	Anti-Anthrax Edema Factor Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with Anthrax Edema Factor from other sources has not been determined.
Relevant Links:	• UniProtKB - P40136 • GeneID - 3361726 • NCBI - NP_052818.1

Application Details

Tested Applications:	ELISA
Application Note:	Anti-Anthrax Edema Factor Antibody has been tested for use in ELISA. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 92 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.