

Datasheet for 600-401-Z74**BIT1 Antibody****Overview**

Description:	Anti-BIT1 (RABBIT) Antibody - 600-401-Z74
Item No.:	600-401-Z74
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Adhesion to extracellular matrix regulates cell survival through both integrin engagement and appropriate cell spreading. Anoikis is the molecular mechanism of apoptosis induced by integrin detachment. Bit1 (Bcl-2 inhibitor of transcription 1) was recently identified as being involved in this process. Bit1 is a mitochondrial protein that is released into the cytoplasm upon onset of apoptosis where it forms a complex with AES, a small Groucho/transducin-like enhancer of split (TLE) protein and induces caspase-independent apoptosis. Both AES and TLE proteins are transcriptional co-repressors that play important roles in neurogenesis, segmentation, and sex determination. It has been suggested that Bit1-AES complexes turn off a survival-promoting gene transcription program controlled by TLE. Interestingly, apoptosis of cells transfected with Bit1 and AES could be inhibited if the cells were allowed to attach to fibronectin through the alpha5beta1 integrin suggesting that the Bit1-AES pathway contributing to anoikis is regulated by integrins, and in particular, the alpha5beta1 integrin.
Synonyms:	Bit1 Antibody, BIT1, PTH2, CGI-147, BIT1, Peptidyl-tRNA hydrolase 2, mitochondrial, Bcl-2 inhibitor of transcription 1, PTH 2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	PTRH2
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Bit1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide from near the amino-terminus of human Bit1.
Purity/Specificity:	Anti-Bit1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with Bit1 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q9Y3E5 • GeneID - 51651 • NCBI - NP_057161

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Bit1 Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 19 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:	1:10,000 - 1:40,000
IF:	20 µg/mL
WB:	1 - 4 µg/mL

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

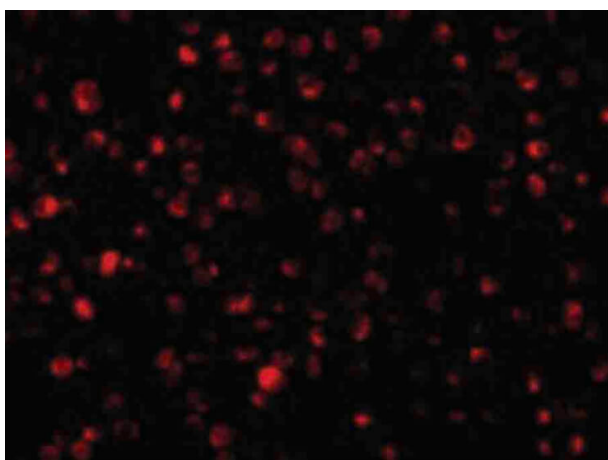
Shipping & Handling

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.

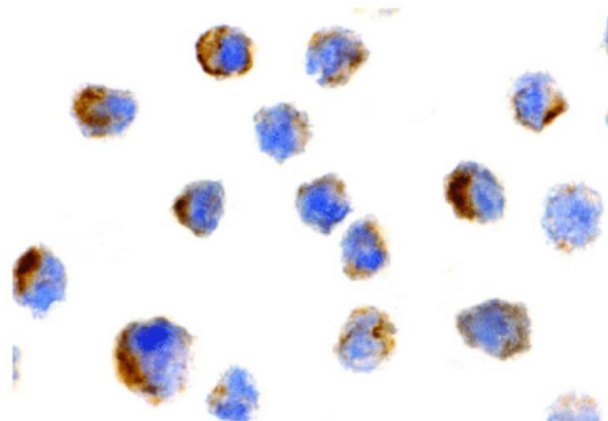
Expiration: Expiration date is one (1) year from date of receipt.

Images



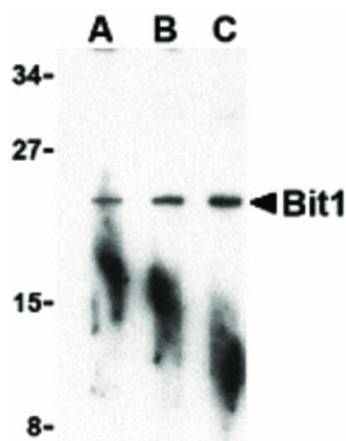
Immunofluorescence Microscopy

Immunofluorescence Microscopy of Bit1 antibody. Cell Type: 3T3 cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Bit1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Bit1 is located in the mitochondrion. Staining: Bit1 as red fluorescent signal.



Immunohistochemistry

Immunocytochemistry of Bit1 antibody. Cell Type: 3T3 cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Bit1 antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Bit1 is located in the mitochondrion. Staining: Bit1 is stained brown with hematoxylin purple nuclear counterstain.

**Western Blot**

Western Blot of Bit1 antibody in A-20 cell lysate. Lane A: Bit1 antibody at 1 $\mu\text{g/mL}$. Lane B: Bit1 antibody at 2 $\mu\text{g/mL}$. Lane C: Bit1 antibody at 4 $\mu\text{g/mL}$. Load: 35 μg per lane. Primary antibody: Bit1 antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 19 kDa, 24 kDa for Bit1. Other band(s): Bit1 splice variants and isoforms.

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.