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Datasheet for 600-401-DV0

PUMA Antibody

Overview

Description:	Anti-PUMA (RABBIT) Antibody - 600-401-DV0
Item No.:	600-401-DV0
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Apoptosis is related to many diseases and development. The p53 tumor-suppressor protein induces apoptosis through transcriptional activation of several genes. A novel p53 inducible pro-apoptotic gene was identified recently and designated PUMA (for p53 upregulated modulator of apoptosis) and bbc3 (for Bcl-2 binding component 3) in human and mouse. PUMA/bbc3 is one of the pro-apoptotic Bcl-2 family members including Bax and Noxa, which are also transcriptional targets of p53. The PUMA gene encodes two BH3 domain-containing proteins termed PUMA-alpha and PUMA-beta. PUMA proteins bind Bcl-2, localize to the mitochondria, and induce cytochrome c release and apoptosis in response to p53. PUMA may be a direct mediator of p53-induced apoptosis.
Synonyms:	PUMA Antibody, JFY1, PUMA, JFY-1, Bcl-2-binding component 3
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	BBC3
Reactivity:	Human
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-PUMA antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to 14 amino acids near the N-terminus of human PUMA-a. This sequence is identical between a and b forms of the PUMA proteins.
Purity/Specificity:	Anti-PUMA Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with PUMA from other sources has not been determined.
Relevant Links:	• UniProtKB - Q9BXH1 • GeneID - 27113 • NCBI - NP_001120712.1

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-PUMA Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 26 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:	1:20,000
IF:	10 µg/mL
IHC:	10 µg/mL
WB:	2 µg/mL

Formulation

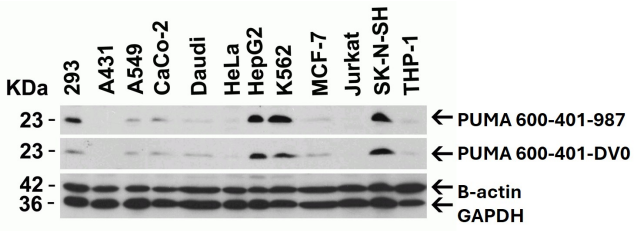
Physical State:	Liquid (sterile filtered)
Concentration:	1.0mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice

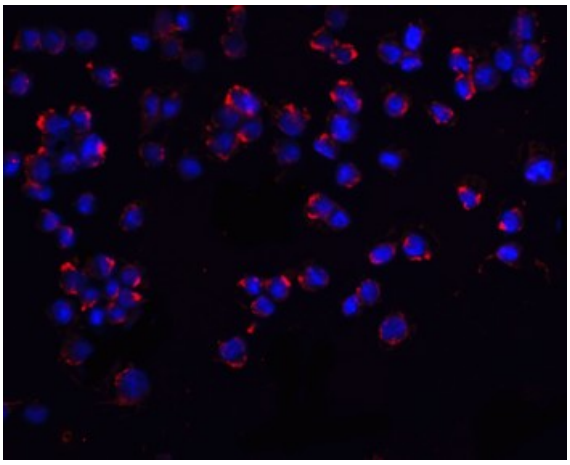
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

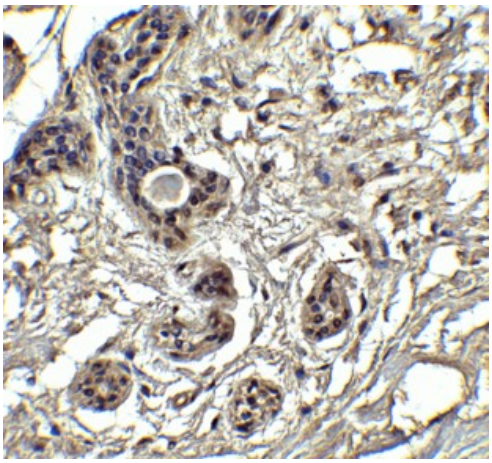


Western Blot
Western Blot using PUMA. Loading: 20 µg of lysates per lane.

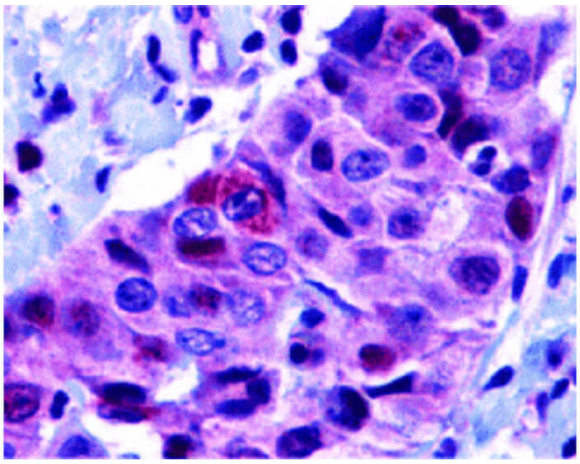
Antibodies: 600-401-987 (3 µg/mL), 600-401-DV0 (2 µg/mL), beta-actin (1 µg/mL) and GAPDH (0.02 µg/mL), 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



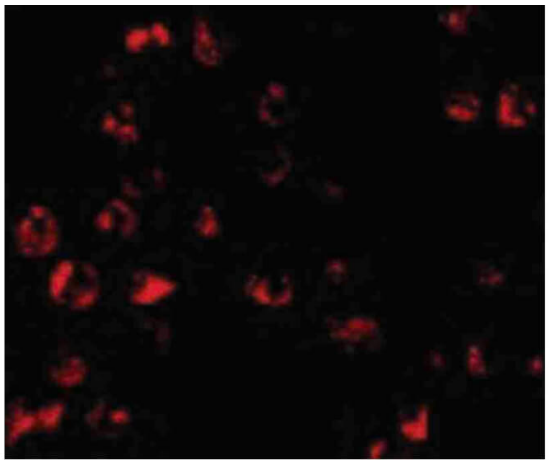
Immunofluorescence Microscopy
Immunofluorescence Validation of PUMA in K562 Cells. Immunofluorescent analysis of 4% paraformaldehyde-fixed K562 cells labeling PUMA at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red) and DAPI staining (blue).



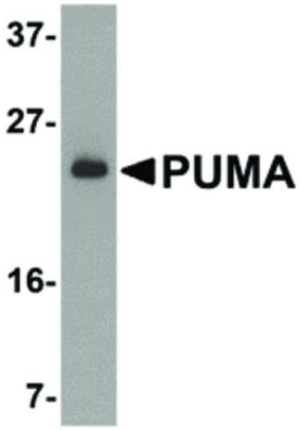
Immunohistochemistry
Immunohistochemistry Validation of PUMA in Human Breast Tissue. Immunohistochemical analysis of paraffin-embedded human breast tissue using anti-PUMA antibody at 2.5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry
Immunohistochemistry of PUMA antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: PUMA antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PUMA is mitochondrial. Staining: PUMA is stained with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of PUMA antibody. Cell Type: K562 cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: PUMA antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PUMA is mitochondrial. Staining: PUMA as red fluorescent signal.



Western Blot

Western Blot of PUMA antibody. Lane 1: PUMA antibody in K562 cell lysate. Load: 35 µg per lane. Primary antibody: PUMA antibody at 2 µg/ml 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: 21 kDa, 24 kDa for PUMA. Other band(s):PUMA 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.