

Datasheet for 600-401-BA5**EndoG Antibody****Overview**

Description:	Anti-EndoG (RABBIT) Antibody - 600-401-BA5
Item No.:	600-401-BA5
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	The fragmentation of nuclear DNA is a hallmark of apoptotic cell death. The activities of caspase and nuclease are involved in the DNA fragmentation. Caspase-activated deoxyribonuclease (CAD), also termed DNA fragmentation factor (DFF40), is one such nuclease, and is capable of inducing DNA fragmentation and chromatin condensation after cleavage by caspase-3 of its inhibitor ICAD/DFF45. Caspase and CAD independent DNA fragmentation also exists. Recent studies demonstrated that another nuclease, endonuclease G (endoG), is specifically activated by apoptotic stimuli and is able to induce nucleosomal fragmentation of DNA independently of caspase and DFF/CAD. EndoG is a mitochondrion-specific nuclease that translocates to the nucleus and cleaves chromatin DNA during apoptosis. The homologue of mammalian EndoG is the first mitochondrial protein identified to be involved in apoptosis in <i>C. elegans</i> . EndoG also cleaves DNA in vitro.
Synonyms:	EndoG Antibody, Endonuclease G, mitochondrial, Endo G
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ENDOG
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-EndoG antibody was from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to 15 amino acids near the N-terminus of human EndoG.
Purity/Specificity:	Anti-EndoG Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with EndoG from other sources has not been determined.
Relevant Links:	• UniProtKB - Q14249 • GeneID - 2021 • NCBI - NP_004426.2

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-EndoG Antibody has been tested for use in ELISA, Western Blotting, Immunofluorescence, and Immunohistochemistry. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 33 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:	20 µg/mL
IHC:	2.5-15 µg/mL
WB:	2 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

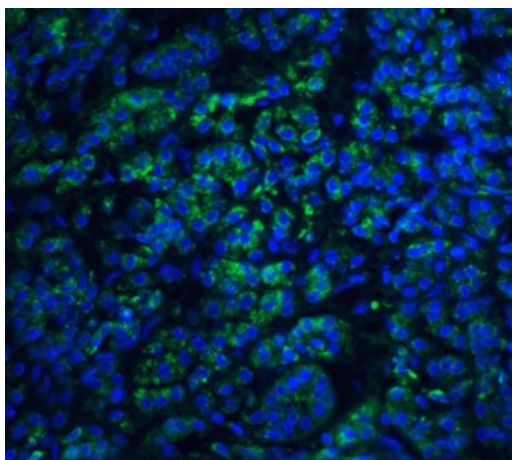
Shipping & Handling

Shipping Condition:	Wet Ice
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Storage Condition: Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

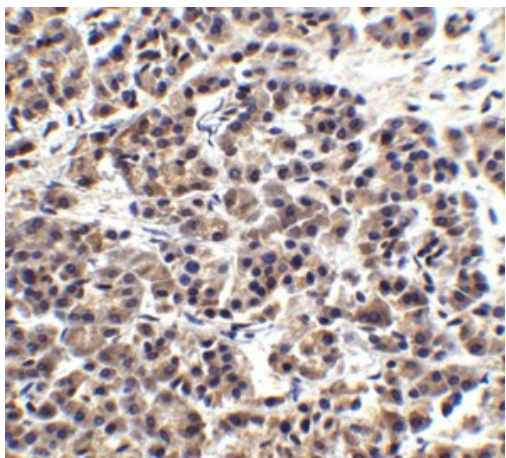
Expiration: Expiration date is one (1) year from date of receipt.

Images



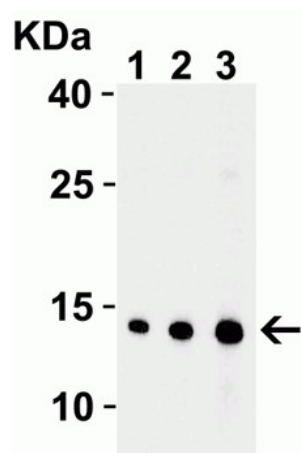
Immunofluorescence Microscopy

Immunofluorescence Validation of EndoG in Human Pancreas Tissue. Immunofluorescent analysis of 4% paraformaldehyde-fixed human pancreas tissue labeling EndoG at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



Immunohistochemistry

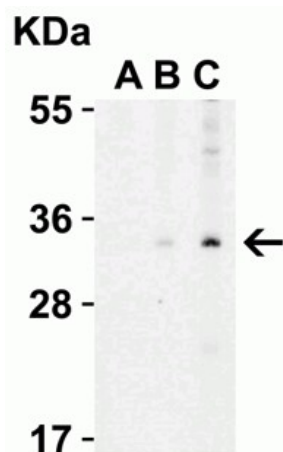
Immunohistochemistry Validation of EndoG in Human Pancreas Tissue. Immunohistochemical analysis of paraffin-embedded human pancreas tissue using anti-EndoG antibody at 2.5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with 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



Western Blot

Western Blot Validation with Recombinant Protein. Loading: 30 ng of human EndoG recombinant protein per lane. Lane 1: 0.5 μ g/mL, Lane 2: 1 μ g/mL, Lane 3: 2 μ g/mL.

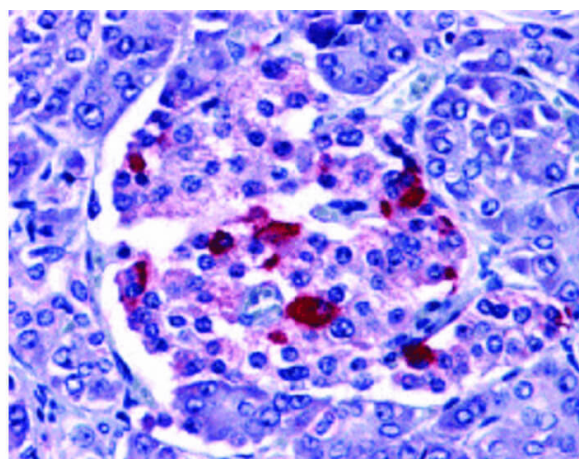
Antibodies: EndoG, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot

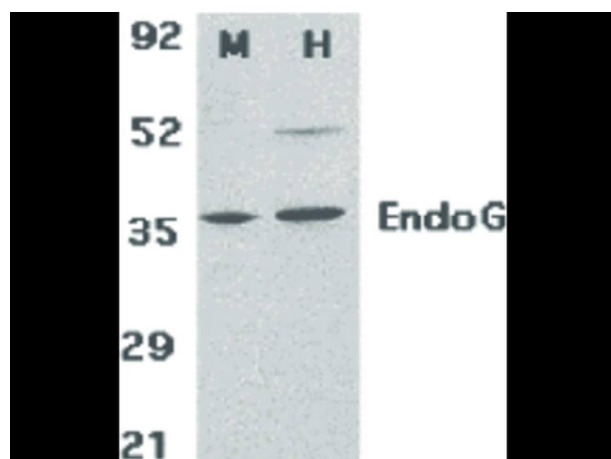
Western Blot Validation in Human A431 Cell Lysate with the presence (A) or absence (B and C) of blocking peptide.

Loading: 15 μ g of lysates per lane. Antibodies: EndoG (A: 0.5 μ g/mL, B: 0.5 μ g/mL, C: 1 μ g/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunohistochemistry

Immunohistochemistry of EndoG antibody. Tissue: human pancreas. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: EndoG antibody at 15 μ g/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: EndoG is mitochondrial. Staining: EndoG is stained with hematoxylin purple nuclear counterstain.



Western Blot

Western Blot of EndoG antibody. Lane M: mouse 3T3.
 Lane H: human HepG2 cell. Load: 35 µg per lane. Primary
 antibody: EndoG 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.

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.