

Datasheet for 600-401-AC8**Caspase-12 Antibody (Large)****Overview**

Description:	Anti-Caspase-12 (Large) (RABBIT) Antibody - 600-401-AC8
Item No.:	600-401-AC8
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	(Large) Three distinct signaling pathways lead to programmed cell death (apoptosis). The death receptor and mitochondrion pathways are the main, in which the key apoptotic proteases caspase-8 and caspase-9, respectively, are involved. The endoplasmic reticulum (ER) stress is the third apoptotic pathway and caspase-12 is involved. Caspase-12 is localized to the ER but not to cytoplasm or mitochondrion. Caspase-12 is activated by ER stress, including disruption of ER calcium homeostasis, and mediates ER stress-induced apoptosis. Caspase-12 is co-localized to the ER with several proteins that are involved in Alzheimer's disease including gamma-secretase presenilin and beta-amyloid precursor protein (APP). Caspase-12 mediates cytotoxicity induced by amyloid-beta. Caspase-12 is ubiquitously expressed in mouse tissues.
Synonyms:	Caspase-12 Antibody (Large), Caspase-12, CASP-12
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Casp12
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-Caspase-12 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids within the large cleavage product of murine caspase-12. The immunogen is located within amino acids 170 - 220 of Caspase-12.
Purity/Specificity:	Anti-Caspase-12 Antibody (Large) is affinity chromatography purified via peptide column. Cross reactivity with Caspase-12 (Large) from other sources has not been determined. Anti-Caspase-12 Antibody can detect human, mouse and rat. Predicted to have no cross reactivity to other members in the caspase family.
Relevant Links:	• UniProtKB - O08736 • GeneID - 12364 • NCBI - CAA73532

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Caspase-12 Antibody (Large) has been tested for use in ELISA, Western Blotting, Immunohistochemistry-P, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 48 kDa in Western Blots of specific cell lysates and tissues. Positive controls: human heart tissue, mouse heart tissue, rat heart tissue.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000 - 1:20,000
IF:	10-20 µg/mL
IHC:	0.5-2 µg/mL
WB:	0.5-2 µg/mL

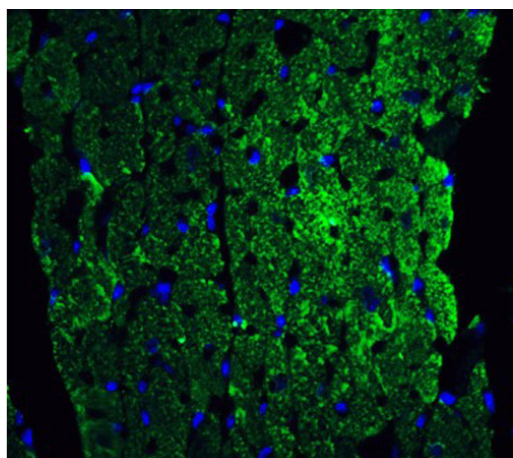
Formulation

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
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



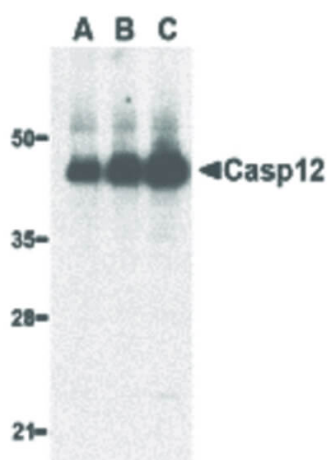
Immunofluorescence Microscopy

Immunofluorescence Validation of Caspase-12.

Tissue: Mouse Heart.

Fixation: 4% paraformaldehyde-fixed.

Labeling: caspase-12 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1:500 dilution (green) and DAPI antibody (blue).



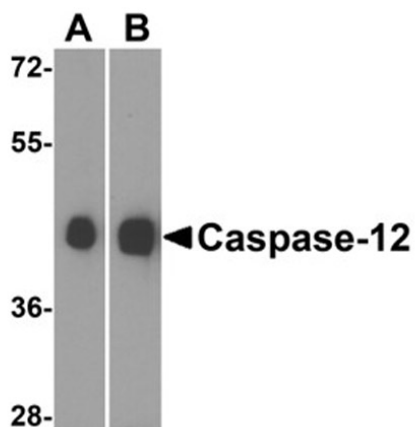
Western Blot

Western Blot of Caspase-12 antibody. Lane A: human heart lysate at 0.5 µg/mL. Lane B: human heart lysate at 1 µg/mL.

Lane C: human heart lysate at 2 µg/mL. Load: 35 µg per lane. Primary antibody: Caspase-12 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: 48 kDa, 45 kDa for Caspase-12.

Other band(s): Caspase-12 splice variants and isoforms.



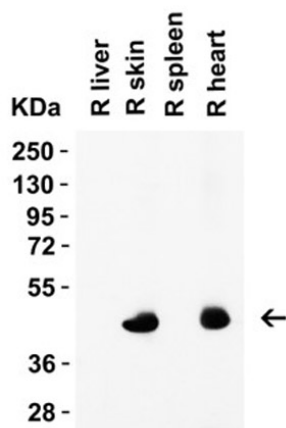
Western Blot

Western Blot Validation of Caspase 12.

Load: 15 μ g of lysate. Lane A: Human heart, Lane B: Mouse heart.

Primary Antibody: Caspase-12 at 0.5 μ g/mL for 1 h incubation at RT in 5% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



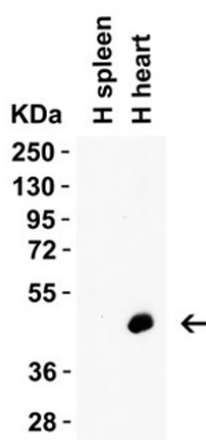
Western Blot

Western Blot Validation of Caspase 12.

Load: 15 μ g of rat lysates. Lane 1: rat liver, Lane 2: rat skin, Lane 3: rat spleen, Lane 4: rat heart.

Primary antibody: Caspase-12 at 1 μ g/mL for 1 h incubation at RT in 5% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



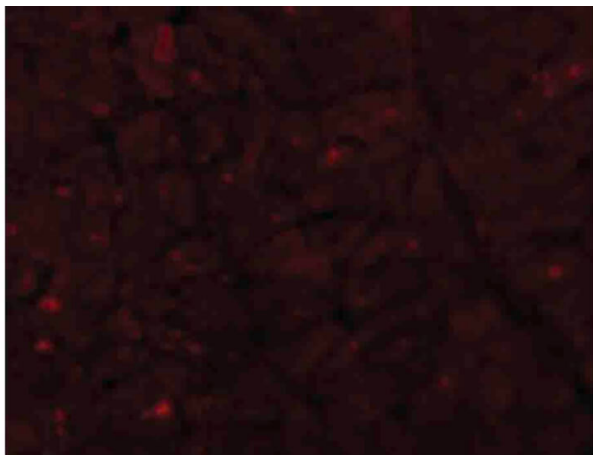
Western Blot

Western Blot Validation of Caspase 12.

Load: 15 μ g of human spleen or human heart lysate.

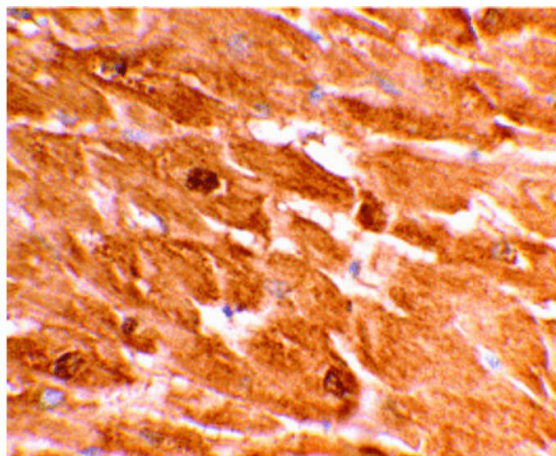
Primary antibody: Caspase-12 at 1 μ g/mL for 1 h incubation at RT in 5% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



Immunofluorescence Microscopy

Immunofluorescence Microscopy of Caspase-12 antibody.
 Cell Type: human heart cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Caspase-12 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: Caspase-12 is endoplasmic reticular. Staining: Caspase-12 as red fluorescent signal.



Immunohistochemistry

Immunohistochemistry of Caspase-12 antibody. Tissue: human heart tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Caspase-12 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: Caspase-12 is endoplasmic reticular. Staining: Caspase-12 is stained with hematoxylin purple nuclear counterstain.

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.