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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 capase-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

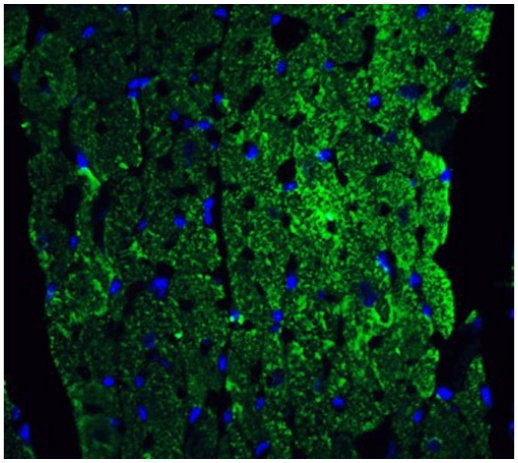
Formulation

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

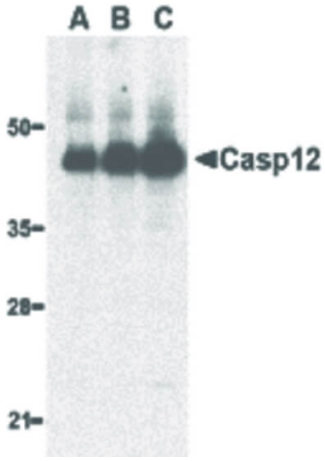
Shipping & Handling

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.

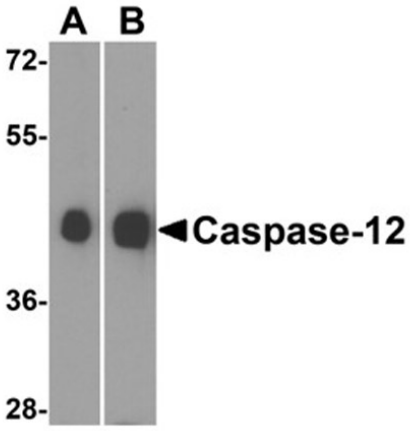
Images



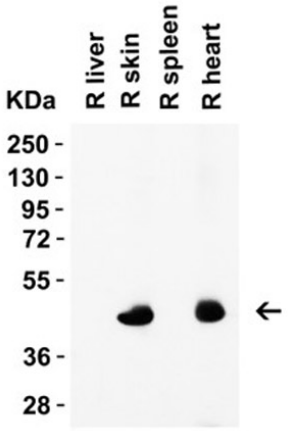
Immunofluorescence Microscopy
Immunofluorescence Validation of Caspase-12.
Tissue: Mouse Heart.
Fixation: 4% paraformaldehyde-fixed.
Labeling: caspase-12 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1:500 dilution (green) and DAPI antibody (blue).



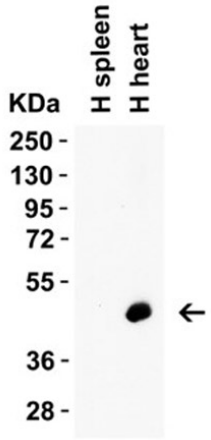
Western Blot
Western Blot of Caspase-12 antibody. Lane A: human heart lysate at 0.5 µg/ml. Lane B: human heart lysate at 1 µg/ml. Lane C: human heart lysate at 2 µg/ml. Load: 35 µg per lane. Primary antibody: Caspase-12 antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase 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.



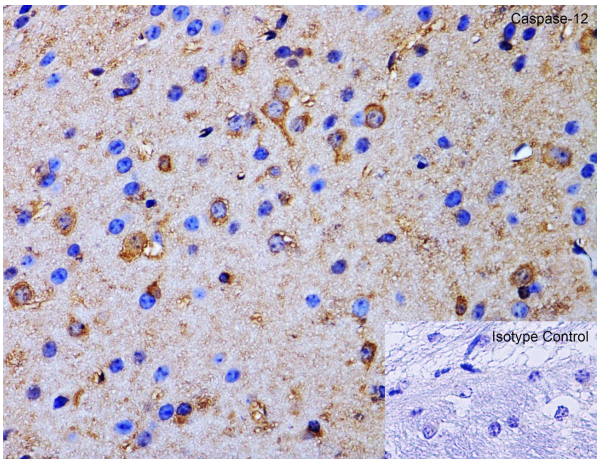
Western Blot
Western Blot Validation of Caspase 12.
Load: 15 µg of lysate. Lane A: Human heart, Lane B: Mouse heart.
Primary Antibody: Caspase-12 at 0.5 µg/mL for 1 h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



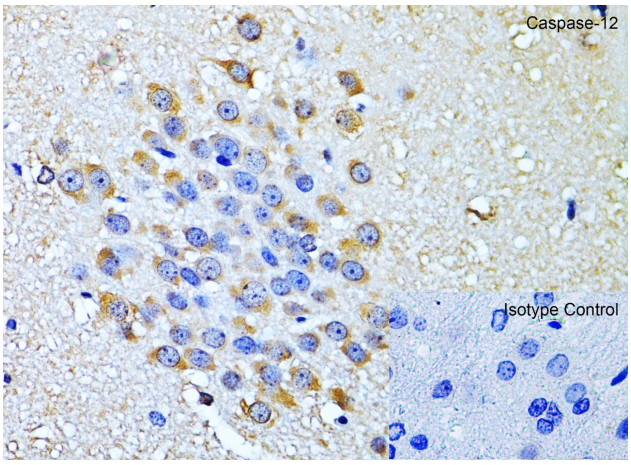
Western Blot
Western Blot Validation of Caspase 12.
Load: 15 µg of rat lysates. Lane 1: rat liver, Lane 2: rat skin, Lane 3: rat spleen, Lane 4: rat heart.
Primary antibody: Caspase-12 at 1 µg/mL for 1 h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



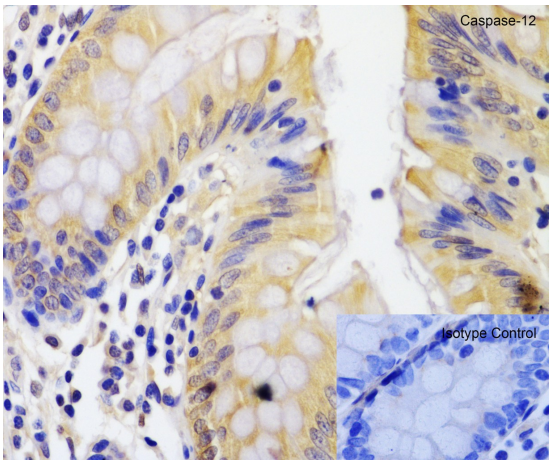
Western Blot
Western Blot Validation of Caspase 12.
Load: 15 µg of human spleen or human heart lysate.
Priamry antibody: Caspase-12 at 1 µg/mL for 1 h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



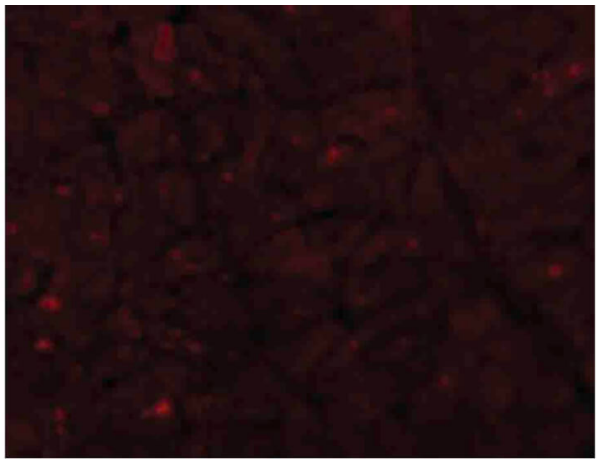
Immunohistochemistry
Immunohistochemistry Validation of Caspase-12 in Mouse Brain. Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-Caspase-12 antibody at 1 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat 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.



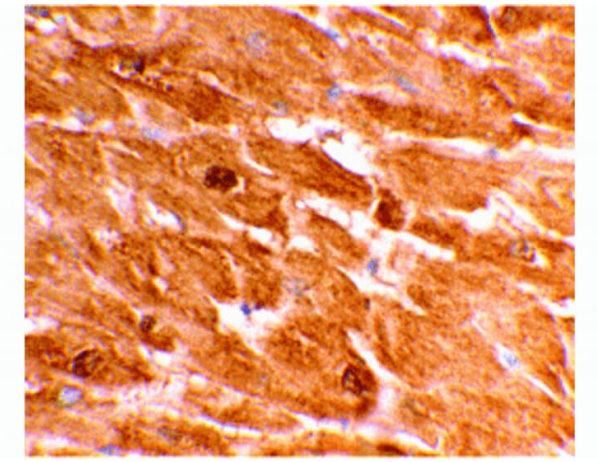
Immunohistochemistry
Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-Caspase-12 antibody at 1 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with 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
Immunohistochemical analysis of paraffin-embedded human colon tissue using anti-Caspase-12 antibody at 1 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.



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

Disclaimer

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