

Datasheet for 600-401-AD4**Caspase-4 Antibody****Overview**

Description:	Anti-Caspase-4 (RABBIT) Antibody - 600-401-AD4
Item No.:	600-401-AD4
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Caspases are a family of cysteine proteases that can be divided into the apoptotic and inflammatory caspase subfamilies. Unlike the apoptotic caspases, members of the inflammatory subfamily are generally not involved in cell death but are associated with the immune response to microbial pathogens. Members of this subfamily include caspase-1, -4, -5, and -12. Activation of these caspases results in the cleavage and activation of proinflammatory cytokines such as IL-1b and IL-18. Caspase-4 was initially identified as a homologous protein to Caspase-1 and the C. elegans Ced-3 which could induce apoptosis in transfected cells. More recent studies have shown that it can be activated by ER stress and has been suggested to be involved in multiple neuronal pathologies such as Alzheimer's disease.
Synonyms:	Caspase-4 Antibody, TX, ICH-2, Mih1/TX, ICEREL-II, ICE(rel)II, ICH2, Caspase-4, Protease ICH-2, CASP-4
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CASP4
Reactivity:	Human
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-Caspase-4 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide from near the internal region of human Caspase-4.
Purity/Specificity:	Anti-Caspase-4 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Depending on cell lines or tissues used, other cleavage products may be observed.
Relevant Links:	• UniProtKB - P49662 • GeneID - 837 • NCBI - AAA86890

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Caspase-4 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 43 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 - 1:20,000
IF:	10 µg/mL
IHC:	2 µg/mL
WB:	1-2 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

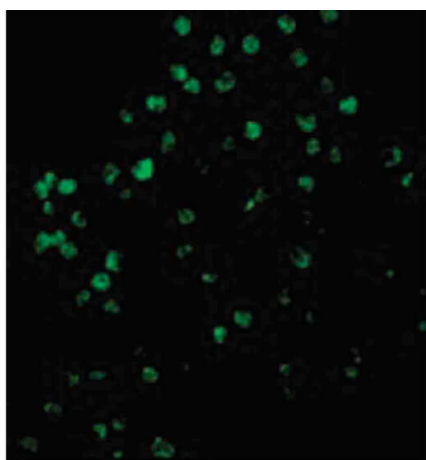
Shipping & Handling

Shipping Condition:	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.

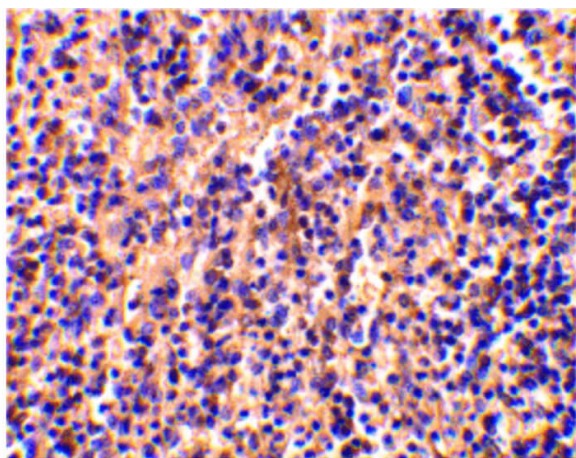
Expiration: Expiration date is one (1) year from date of receipt.

Images



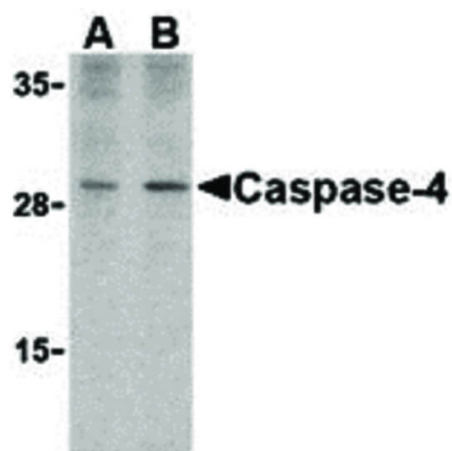
Immunofluorescence Microscopy

Immunofluorescence Microscopy of Caspase-4 antibody.
Cell Type: A20 cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Caspase-4 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-4 is located in the endoplasmic reticulum, cell membrane, and mitochondrion. Staining: Caspase-4 as green fluorescent signal.



Immunohistochemistry

Immunohistochemistry of Caspase-4 antibody. Tissue: human spleen tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Caspase-4 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-4 is located in the endoplasmic reticulum, cell membrane, and mitochondrion. Staining: Caspase-4 is stained with toluidine blue.

**Western Blot**

Western Blot of Caspase-4 antibody. Lane A: Caspase-4 antibody at 1 $\mu\text{g/mL}$. Lane B: Caspase-4 antibody at 2 $\mu\text{g/mL}$. Load: 35 μg per lane. Primary antibody: Caspase-4 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: 43 kDa, 31 kDa for Caspase-4. Other band(s): Caspase-4 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.