

Certificate of Analysis

Product: Affinity Purified Anti-Caspase 12 [Rabbit]

Code: 600-401-986

Lot # 19037

Size: 100 µg

Physical State: Liquid (sterile filtered)

Protein Concentration: 0.5 mg/ml (by UV absorbance at 280 nm)

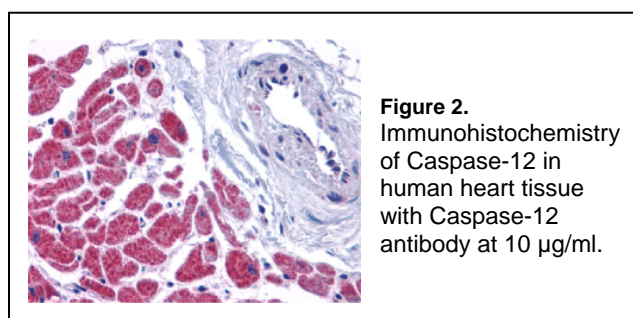
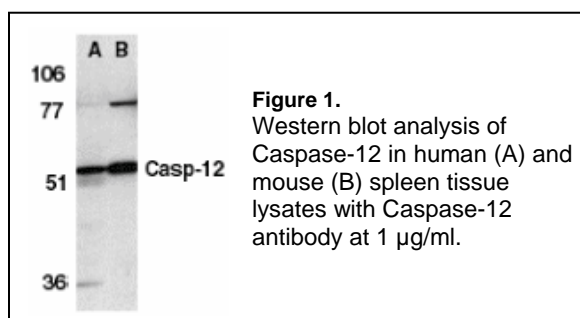
Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.02% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C or below prior to opening. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening product.

Background Information: Three distinct signaling pathways lead to programmed cell death (apoptosis). Two of these are the death receptor and mitochondrion pathways, in which the key apoptotic proteases caspase-8 and caspase-9, respectively, are involved. Endoplasmic reticulum (ER) stress is the third apoptotic pathway and caspase-12 is involved (1,2). Caspase-12 is localized to the ER but not to the 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 γ -secretase presenilin and β -amyloid precursor protein (APP). Caspase-12 mediates cytotoxicity induced by amyloid- β . Caspase-12 is ubiquitously expressed in mouse tissues (1).



Application Note(s): This affinity purified antibody has been tested for use in western blotting and immunohistochemistry. Murine spleen tissue lysate can be used as a positive control in western blotting, and a band at approximately 53 kDa is expected. Specific conditions for reactivity should be optimized by the end user.

Recommended Dilutions:

ELISA	User Optimized
WESTERN BLOT	0.5-1 µg/ml
IMMUNOHISTOCHEMISTRY	10 µg/ml
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This affinity purified antibody is directed against mouse Caspase-12 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. The antibody is human, mouse and rat reactive. Reactivity against homologues from other sources has not been determined.

Immunogen: This antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids near the amino terminus of mouse Caspase-12 protein.

Relevant Links: NCBI [NP_033938](#) Swiss-Prot [O08736](#)

Related Product(s):

#W10-000-T029	Normal Mouse Spleen Whole Cell Lysate (500ug)
#611-703-127	Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10
#611-132-122	IRDye® 800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
#B501-0500	BLOTTO (500 g)
#BSA-30	30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer) (500 ml)
#B304	NORMAL GOAT SERUM (NGS) (10 ml)
#KIA-003	MaxTag™ Anti-RABBIT IgG Kit for Immunoblotting
#MB-070	Blocking Buffer for Fluorescent Western Blotting

General References:

1. Nakagawa T, Zhu H, Morishima N, Li E, Xu J, Yankner BA, Yuan J (2000) Caspase-12 mediates endoplasmic-reticulum-specific apoptosis and cytotoxicity by amyloid-beta. *Nature* **403**:98-103.
2. Mehmet H. Caspases (2000) find a new place to hide. *Nature* **403**:29-30.
3. Van de Craen M, Vandenabeele P, Declercq W, Van den Brande I, Van Loo G, Molemans F, Schotte P, Van Crielinge W, Beyaert R, Fiers W (1997) Characterization of seven murine caspase family members. *FEBS Lett.* **403**: 61-69.

USDA Certification: 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.

Note: 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.