

Datasheet for 600-401-412

Caspase-2 Antibody**Overview**

Description:	Anti-Caspase-2 (RABBIT) Antibody - 600-401-412
Item No.:	600-401-412
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details**Background:**

Apoptosis occurs during normal cellular development and involves dramatic changes in cellular structure. Disruption of apoptosis may contribute to cancer and other diseases. Caspases are a family of cysteine proteases that are key mediators of programmed cell death or apoptosis. Caspase-2 has been called ICH-1 in human, CED-3 in *C.elegans* and NEDD-2 in mouse. Caspase-2 is synthesized as an inactive precursor that is processed in cells undergoing apoptosis. The precursor form of all caspases is composed of a pro-domain, and large and small catalytic subunits. The active forms of caspases are generated by several stimuli, including ligand-receptor interactions, growth factor deprivation and inhibitors of cellular functions. Caspase-2 is activated in vitro by caspase-1, caspase-3 and granzyme B. Caspase-2 functions as an upstream apoptosis initiator that participates in the activation of downstream caspases, such as caspase-3, caspase-6 and caspase-7. Caspase-2 is highly expressed in embryonic mouse brain but not in adult neural tissue. Alternative mRNA splicing produces a long (48 kDa) and short (35 kDa) form of caspase-2. These forms show tissue specificity and function either as inducers or suppressors of apoptosis. Mature caspase-2 is 435 amino acids in length cleaved (~50 kDa) and is cleaved upon activation into 10 and 20 kDa subunits.

Synonyms:

rabbit anti-Caspase-2 Antibody, Apoptosis related cysteine peptidase antibody, CASP-2, CASP 2 antibody, Casp 2L Pro antibody, CASP2 antibody, Caspase 2 apoptosis related cysteine protease antibody, Caspase2 antibody, Caspase-2, Developmentally down regulated 2 antibody, ICH 1 antibody, ICH-1, Caspase-2 subunit p18, Caspase-2 subunit p13, Caspase-2 subunit p12

Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Casp2
Reactivity:	Mouse, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	A synthetic peptide corresponding to the N-terminus of rat Caspase-2 protein conjugated to Keyhole Limpet Hemocyanin (KLH) through a cysteine residue linker.
Purity/Specificity:	This affinity purified antibody is directed against rat and mouse caspase-2. The antibody detects long and short forms of the protein. Antiserum was purified against the immunizing peptide. This antibody reacts with mouse and rat caspase-2, but not caspase-2 from human sources. Cross reactivity with caspase-2 from other sources has not been determined. Rat and mouse caspase-2 show 94% homology. There is no significant homology to the human form.
Relevant Links:	• NCBI - AAD33684.1 • UniProtKB - P55215 • GeneID - 64314

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity purified polyclonal antibody was tested by ELISA and immunoblotting and was found to be reactive with 48 kDa mouse and rat caspase-2. A control and rat caspase-2 transfected human 293 cell lysate was used to show by immunoblotting that this antibody detects rat caspase-2. No reaction was observed against human caspase-2. Immunoblot of mouse neuronal cell lysates from wild-type and caspase-2 (-/-) mice (not shown) was used to show that this antibody cross reacts with mouse caspase-2. A 1:750 dilution is recommended for immunoblot. This product was assayed against 1.0 µg of immunizing peptide in a standard sandwich ELISA using HRP conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302 and TMB as a substrate for 30 minutes at room temperature. A working dilution of 1:1,500 to 1:6,000 is suggested for this product.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,500 - 1:6,000
WB:	1:750

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.44 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry 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



Western Blot

Affinity Purified antibody to Caspase-2 was used at a 1:750 dilution to detect rat caspase-2 in transfected human 292 cell lysates (lane 2) by Western blot. Asterisk indicates a 48 kDa caspase-2 protein clearly detected in the rat caspase-2 transfected lysate. No reaction is observed against human caspase-2. Control (lane 1) and transfected (lane 2) lysates were loaded on a 4-20% gel for SDS-PAGE. After primary antibody incubation and washing, a 1:5,000 dilution of HRP conjugated Gt-a-Rabbit IgG (611-103-122) preceded color development using Amersham's substrate system. Other detection methods will yield similar results.

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.