

Anti-CASPASE-2 (RABBIT) Antibody
Caspase-2 Antibody
Catalog # ASR5206**Specification**

Anti-CASPASE-2 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Rat
Reactivity	Rat, Mouse
Clonality	Polyclonal
Application	WB, E, I, LCI
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.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
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.
Preservative	0.01% (w/v) Sodium Azide

Anti-CASPASE-2 (RABBIT) Antibody - Additional Information

Gene ID 64314

Other Names
64314

Purity

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.

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.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-CASPASE-2 (RABBIT) Antibody - Protein Information

Name Casp2

Synonyms Ich1

Function

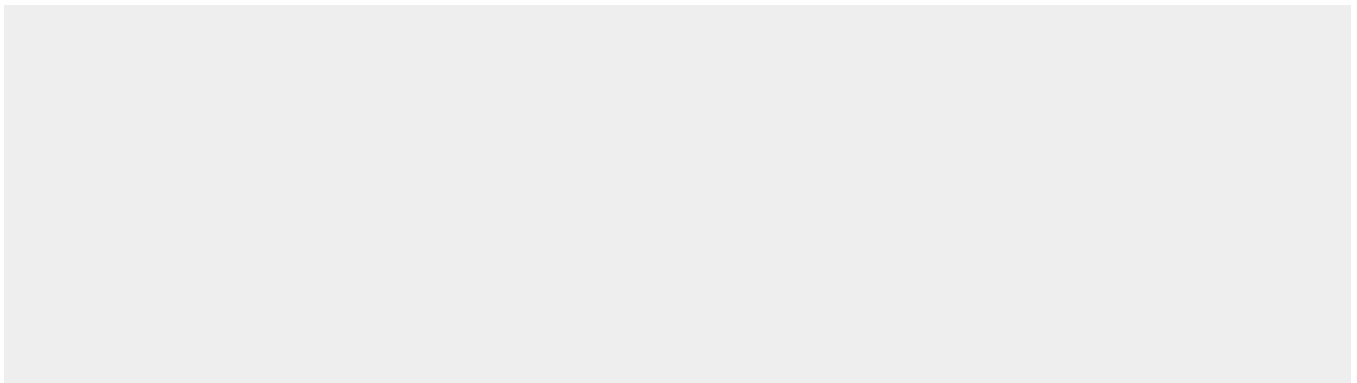
Involved in the activation cascade of caspases responsible for apoptosis execution. Might function by either activating some proteins required for cell death or inactivating proteins necessary for cell survival (By similarity). Associates with PIDD1 and CRADD to form the PIDDosome, a complex that activates CASP2 and triggers apoptosis in response to genotoxic stress (By similarity).

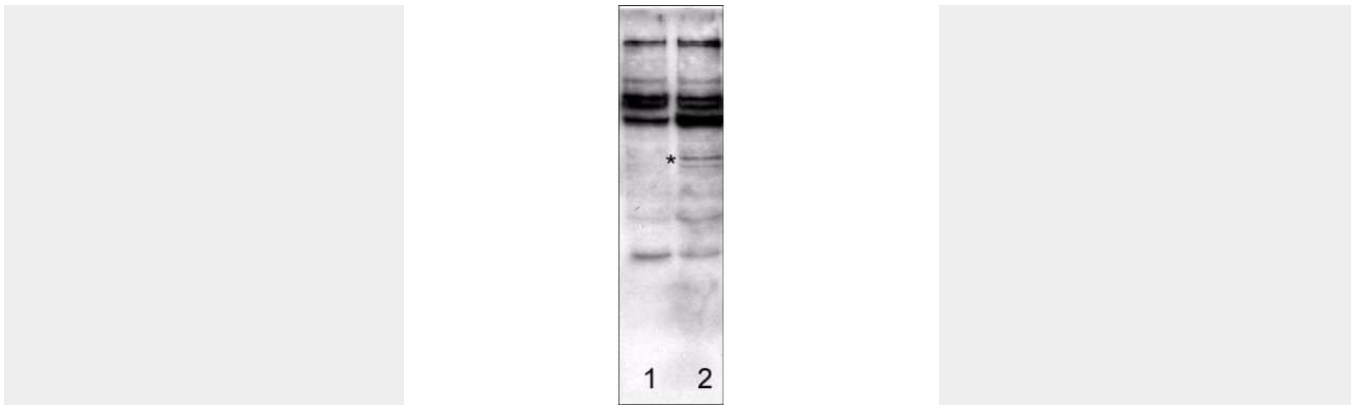
Anti-CASPASE-2 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-CASPASE-2 (RABBIT) Antibody - Images





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.

Anti-CASPASE-2 (RABBIT) Antibody - 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.