



Anti-CASPASE-2 (RABBIT) Antibody - 600-401-412

Code: 600-401-412

Size: 100 µg

Product Description: Anti-CASPASE-2 (RABBIT) Antibody - 600-401-412

Concentration: 0.44 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

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| Label | Unconjugated |
| Host | Rabbit |
| Gene Name | Caspase-2 |
| Species Reactivity | mouse, rat |
| Buffer | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| Stabilizer | None |
| Preservative | 0.01% (w/v) Sodium Azide |
| 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. |
| 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, Caspase 2 antibody, Developmentally down regulated 2 antibody, ICH 1 antibody, ICH-1, NEDD-2, NEDD2, NEDD 2 |
| 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. 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. 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. 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. A 1:750 dilution is recommended for immunoblot. |
| 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. |
| Purity And 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. |
| Assay Dilutions | User Optimized |
| ELISA | 1:1,500 to 1:6,000 |
| Western Blot | 1:750 |
| Other Assays | User Optimized |
| Expiration | Expiration date is one (1) year from date of opening. |

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.

General Reference

Wang, L., Miura, M., Bergeron, L., Zhu, H., Yuan, J. (1994) Ich-1, an Ice/ced-3-related gene, encodes both positive and negative regulators of programmed cell death. *Cell* 78:739-750. Li, H., Bergeron, L., Cryns, V., Pasternack, M.S., Zhu, H., Shi, L., Greenberg, A., Yuan, J. (1997) Activation of caspase-2 in apoptosis. *J. Biol. Chem.* 272:21010-21017. Cohen, G.M. (1997) Caspases: the executioners of apoptosis. *Biochem. J.* 326:1-16. Bergeron, L., Perez, G.I., Macdonald, G., Shi, L., Sun, Y., Jurisicova, A., Varmuza, S., Latham, K.E., Flaws, J.A., Salter, J.C., Hara, H., Moskowitz, M.A., Li, E., Greenberg, A., Tilly, J.L., Yuan, J. (1998) Defects in regulation of apoptosis in caspase-2-deficient mice. *Gene Dev.* 12:1304-1314.

Related Products

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|-------------|--|
| 200-401-A34 | Anti-Survivin (RABBIT) Antibody - 200-401-A34 |
| 600-401-268 | Anti-AKT pS473 (RABBIT) Antibody - 600-401-268 |
| 600-401-964 | Anti-Pdcd4 pS457 (RABBIT) Antibody - 600-401-964 |
| 600-401-966 | Anti-DAXX (RABBIT) Antibody - 600-401-966 |

Related Links

NCBI - AAD33684.1

<http://www.ncbi.nlm.nih.gov/protein/AAD33684.1>

UniProtKB - P55215 <http://www.uniprot.org/uniprot/P55215>

GenID - 64314

Images

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Affinity Purified antibody to Caspase-2 was used at a 1:750 dilution to detect rat caspase-2 in transfected human 292 cell lysates 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

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