

## Caspase-2 Antibody

*Caspase-2 (NT): ICH-1, Nedd2*

**CATALOG NO.: 3447**

### 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 (reviewed in 1 and 2). Members of this subfamily include caspase-1, -4, -5, and -12 and can activate proinflammatory cytokines such as IL-1 $\beta$  and IL-18 (3,4). Although phylogenetically similar to this subfamily, caspase-2 is thought to be involved in stress-induced apoptosis (5). Caspase-2 has two major isoforms; overexpression on the long form results in apoptosis while that of the short form suppresses cell death (6).

### SOURCE:

Rabbit polyclonal caspase-2 antibody was raised against a 16 amino acid peptide from the amino-terminus of human caspase-2 (Genbank accession No. P42575).

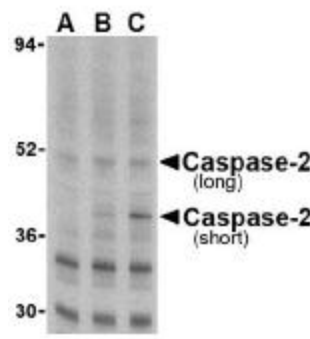
### APPLICATION:

Caspase-2 antibody can be used for the detection of caspase-2 by Western blot at 1  $\mu$ g/ml. (Optimal dilution should be determined by user.) Ramos cell lysate can be used as positive control. Caspase-2 antibody is human and mouse reactive. Depending on cell lines or tissues used, other cleavage products may be observed.

**This product is for research use only.**

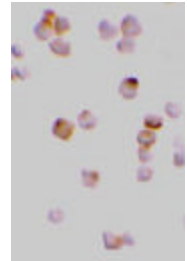
### STORAGE:

Caspase-2 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of caspase-2 in Ramos cells with caspase-2 antibody at (A) 0.5, (B) 1, and (C) 2  $\mu$ g/ml.

Immunocytochemistry of caspase-2 in A-20 cells with caspase-2 antibody at 2  $\mu$ g/ml.



### RELATED PRODUCTS:

Blocking peptide, Catalog No. **3447P**.  
Ramos Cell Lysate, Catalog No. **1225**.  
Caspase-1 Antibody (CT), Catalog No. **3459**.  
Caspase-5 Antibody (IN), Catalog No. **3457**.  
Caspase-12 Antibody (NT), Catalog No. **2325**.

### REFERENCES:

1. Martinon F and Tschopp J. Inflammatory caspases: linking an intracellular innate immune system to autoinflammatory diseases. *Cell* 2004; 117:561-74.
2. Zhivotovsky B and Orrenius S. Caspase-2 function in response to DNA damage. *Biochim. Biophys. Res. Comm.* 2005; 331:859-67.
3. Kuida K, Lippke JA, Ku G, et al. Altered cytokine export and apoptosis in mice deficient in interleukin-1 beta converting enzyme. *Science* 1995; 267:2000-3.
4. Gracie JA, Robertson SE, and McInnes IB. Interleukin-18. *J. Leukoc. Biol.* 2003; 73:213-224.
5. Lassus P, Opitz-Araya X, and Lazebnik Y. Requirement for caspase-2 in stress-induced apoptosis before mitochondrial permeabilization. *Science* 2002; 10:1352-4.
6. Wang L, Miura M, Bergeron L, et al. Ich-1, and Ice/ced-3-related gene, encodes both positive and negative regulators of programmed cell death. *Cell* 1994; 739-750. (RD1005)