SANTA CRUZ BIOTECHNOLOGY, INC.

# caspase-$2_L$ (H-119): sc-8985

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Caspase-2 (Nedd2, ICH-1) is an aspartate-specific cysteine protease that is activated in response to various apoptotic stimuli. Caspase-2 is unique among the caspases in that it has features of both upstream caspases (long prodomain) and downstream caspases (DEXD substrate specificity). Caspase-2 is highly expressed in the brain during development, and is expressed at low levels in adult tissue. Specifically, caspase-2 localizes to the mitochondria, the Golgi, the cytoplasm and the nucleus. Caspase-2 exists as two isoforms, caspase-$2_L$ and caspase-$2_S$, which are produced by alternative splicing and differ in their N- and C-termini. Caspase-$2_L$ acts as a positive regulator of apoptosis, whereas caspase-$2_S$ functions as a negative regulator of apoptosis. Following apoptotic stimuli, the caspase-$2_L$ precursor undergoes cleavage at Asp 153 to produce a fragment (p30). The p30 fragment undergoes further cleavage to generate a fragment containing amino acids 153-308 (p18) and a fragment containing amino acids 317-435 (p13 or p14). As apoptosis progresses, the p13 (p14) fragment can undergo further processing to yield a fragment containing amino acids 331-435 (p12).

## REFERENCES


1. Wang, L., et al. 1994. Ich-1, an ICE/CED-3-related gene, encodes both positive and negative regulators of programmed cell death. Cell 78: 739-750.
2. Li, H., et al. 1997. Activation of caspase-2 in apoptosis. J. Biol. Chem. 34: 21010-21017.
3. Butt, A., et al. 1998. Dimerization and autoprocessing of the Nedd2 (caspase-2) precursor requires both the prodomain and the carboxyl-terminal regions. J. Biol. Chem. 12: 6763-6768.
4. Mancini, M., et al. 2000. Caspase-2 is localized at the Golgi complex and cleaves golgin 160 during apoptosis. J. Cell. Biol. 149: 603-612.


## CHROMOSOMAL LOCATION

Genetic locus: CASP2 (human) mapping to 7q35; Casp2 (mouse) mapping to 6 B2.1.

## SOURCE

caspase-$2_L$ (H-119) is a rabbit polyclonal antibody raised against amino acids 317-435 mapping at the C-terminus of caspase-$2_L$ of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

## APPLICATIONS

caspase-$2_L$ (H-119) is recommended for detection of p12 subunit, p13 subunit, caspase-$2_L$ and full length caspase-2 precursor of human, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

caspase-$2_L$ (H-119) is also recommended for detection of p12 subunit, p13 subunit, caspase-$2_L$ and full length caspase-2 precursor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for caspase-2 siRNA (h): sc-29236, caspase-2 siRNA (m): sc-29925 and caspase-2 siRNA (r): sc-72108.

Molecular Weight of caspase-2 precursor: 51 kDa.

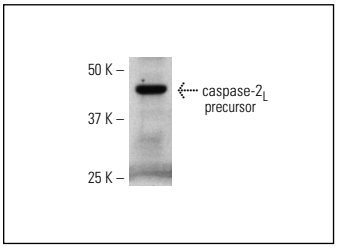
Molecular Weight of caspase-$2_L$: 51 kDa.

Molecular Weight of p12 subunit: 12 kDa.

Molecular Weight of p13 subunit: 13 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

## DATA




caspase-$2_L$ (H-119): sc-8985. Western blot analysis of caspase-$2_L$ expression in MOLT-4 whole cell lysate.

## SELECT PRODUCT CITATIONS


1. Monroe, D.G., et al. 2002. Tissue-protective effects of estrogen involve regulation of caspase gene expression. Mol. Endocrinol. 16: 1322-1331.


## RESEARCH USE

For research use only, not for use in diagnostic procedures.