

# caspase-9 p10 (H-83): sc-7885

## BACKGROUND

A unique family of cysteine proteases has been described that differs in sequence, structure and substrate specificity from any previously described protease family. This family, Ced-3/caspase-1, is comprised of caspase-1, caspase-2, caspase-3, caspase-4, caspase-6, caspase-7 (also designated Mch3, ICE-LAP3 or CMH-1), caspase-9 and caspase-10. Ced-3/caspase-1 family members function as key components of the apoptotic machinery and act to destroy specific target proteins which are critical to cellular longevity. Poly(ADP-ribose) polymerase plays an integral role in surveying for DNA mutations and double-strand breaks. Caspase-3, caspase-7 and caspase-9, but not caspase-1, have been shown to cleave the nuclear protein PARP into an apoptotic fragment. Caspase-6, but not caspase-3, has been shown to cleave the nuclear lamins, which are critical to maintaining the integrity of the nuclear envelope and cellular morphology. Caspase-10 has been shown to activate caspase-3 and caspase-7 in response to apoptotic stimuli.

## CHROMOSOMAL LOCATION

Genetic locus: CASP9 (human) mapping to 1p36.21; Casp9 (mouse) mapping to 4 E1.

## SOURCE

caspase-9 p10 (H-83) is a rabbit polyclonal antibody raised against amino acids 315-397 mapping within the C-terminus of caspase-9 p10 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.

## APPLICATIONS

caspase-9 p10 (H-83) is recommended for detection of caspase-9 p10 and the caspase-9 precursor of mouse, rat and human 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-9 p10 (H-83) is also recommended for detection of caspase-9 p10 and the caspase-9 precursor in additional species, including equine and bovine.

Molecular Weight of caspase-9: 46 kDa.

Molecular Weight of caspase-9 p10 cleavage fragment: 10 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MOLT-4 cell lysate: sc-2233 or HuT 78 whole cell lysate: sc-2208.

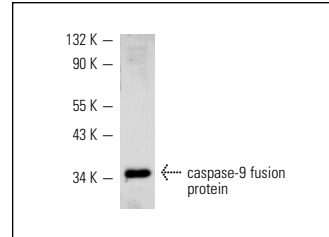
## STORAGE

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

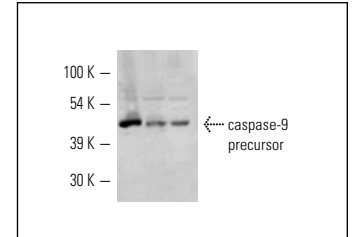
## RESEARCH USE

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

## DATA



caspase-9 p10 (H-83): sc-7885. Western blot analysis of human recombinant caspase-9 fusion protein.



caspase-9 p10 (H-83): sc-7885. Western blot analysis of caspase-9 precursor in Jurkat (A), HUT 78 (B) and MOLT-4 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Zhang, L., et al. 2000. Role of BAX in the apoptotic response to anticancer agents. *Science* 290: 989-992.
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- Yang, D., et al. 2011. Smac-mimetic compound SM-164 induces radiosensitization in breast cancer cells through activation of caspases and induction of apoptosis. *Breast Cancer Res. Treat.* 13: 189-99.
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- Huang, T.Y., et al. 2012. Effect of sulforaphane on growth inhibition in human brain malignant glioma GBM 8401 cells by means of mitochondrial and MEK/ERK-mediated apoptosis pathway. *Cell Biochem. Biophys.* 63: 247-259.