

caspase-9 p35 (H-170): sc-8355

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, termed 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.

REFERENCES

- Lindahl, T., et al. 1995. Posttranslational modification of poly(ADP-ribose) polymerase induced by DNA strand breaks. *Trends Biochem. Sci.* 20: 405-411.
- Duan, H., et al. 1996. ICE-LAP3, a novel mammalian homolog of the *Caenorhabditis elegans* cell death protein Ced-3 is activated during Fas- and tumor necrosis factor-induced apoptosis. *J. Biol. Chem.* 271: 1621-1625.

CHROMOSOMAL LOCATION

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

SOURCE

caspase-9 p35 (H-170) is a rabbit polyclonal antibody raised against amino acids 100-270 mapping within an internal region of caspase-9 p35 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 p35 (H-170) is recommended for detection of p35 subunit and precursor of caspase-9 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).

Molecular Weight of caspase-9 p35 (procaspase-9): 46 kDa.

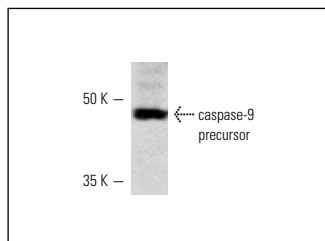
Molecular Weight of caspase-9 p35 (activated form): 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or HuT 78 whole cell lysate: sc-2208.

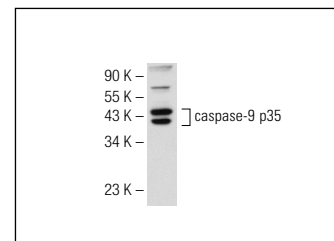
STORAGE

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

DATA



caspase-9 p35 (H-170): sc-8355. Western blot analysis of caspase-9 precursor expression in HeLa whole cell lysate.



caspase-9 p35 (H-170): sc-8355. Western blot analysis of caspase-9 p35 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

- Hlaing, T., et al. 2001. Molecular cloning and characterization of DEFCAP_L and -_S, two isoforms of a novel member of the mammalian Ced-4 family of apoptosis proteins. *J. Biol. Chem.* 276: 9230-9238.
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- Vinothini, G., et al. 2011. Mitochondria-mediated apoptosis in patients with adenocarcinoma of the breast: Correlation with histological grade and menopausal status. *Breast* 20: 86-92.
- Ying, T.H., et al. 2011. Fisetin induces apoptosis in human cervical cancer HeLa cells through ERK1/2-mediated activation of caspase-8/caspase-3-dependent pathway. *Arch. Toxicol.* 86: 263-273.
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- Kavitha, K., et al. 2012. Nimbolide, a neem limonoid abrogates canonical NFκB and Wnt signaling to induce caspase-dependent apoptosis in human hepatocarcinoma (HepG2) cells. *Eur. J. Pharmacol.* 681: 6-14.
- Chien, M.H., et al. 2012. Lipocalin-2 induces apoptosis in human hepatocellular carcinoma cells through activation of mitochondria pathways. *Cell. Biochem. Biophys.* 64:177-186.
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- Chang, C.H., et al. 2012. Antrodia cinnamomea exhibits a potent neuroprotective effect in the PC12 Cell-β25-35 model-pharmacologically through adenosine receptors and mitochondrial pathway. *Planta Med.* 78: 1813-1823.

RESEARCH USE

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