

caspase-10 p10 (N-19): sc-6186

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 and 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 112 kDa nuclear protein PARP into an 85 kDa 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

1. Lindahl, T., et al. 1995. Posttranslational modification of poly(ADP-ribose) polymerase induced by DNA strand breaks. *Trends Biochem. Sci.* 20: 405-411.
2. Duan, H., et al. 1996. ICE-LAP3, a novel mammalian homologue 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.
3. Fernandes-Alnemri, T.F., et al. 1996. *In vitro* activation of CPP32 and Mch3 by Mch4, a novel human apoptotic cysteine protease containing two FADD-like domains. *Proc. Natl. Acad. Sci. USA* 93: 7464-7469.

CHROMOSOMAL LOCATION

Genetic locus: MAPK11 (human) mapping to 22q13.33.

SOURCE

caspase-10 p10 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of caspase-10 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.

caspase-10 p10 (N-19) is available conjugated to agarose (sc-6186 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-6186 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

Blocking peptide available for competition studies, sc-6186 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

caspase-10 p10 (N-19) is recommended for detection of p10 subunit and precursor of caspase-10 of 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).

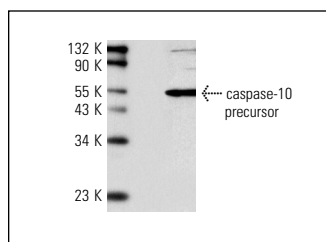
Suitable for use as control antibody for caspase-10 siRNA (h): sc-29923, caspase-10 shRNA Plasmid (h): sc-29923-SH and caspase-10 shRNA (h) Lentiviral Particles: sc-29923-V.

Molecular Weight of caspase-10 precursor: 58 kDa.

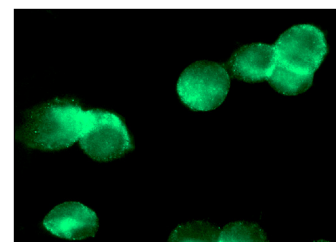
Molecular Weight of caspase-10 p10 subunit: 10 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or human liver tissue.

DATA



caspase-10 p10 (N-19): sc-6186. Western blot analysis of caspase-10 (Mch4) precursor expression in Jurkat whole cell lysate.



caspase-10 p10 (N-19): sc-6186. Immunofluorescence staining of methanol-fixed Jurkat cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Kim, K., et al. 2000. Molecular determinants of response to TRAIL in killing of normal and cancer cells. *Clin. Cancer Res.* 6: 335-346.
2. Jin, T., et al. 2004. FAS-associated protein with death domain (FADD)-independent recruitment of c-FLIP_L to death receptor 5. *J. Biol. Chem.* 279: 55594-55601.
3. Lisa-Santamaría, P., et al. 2009. Human initiator caspases trigger apoptotic and autophagic phenotypes in *Saccharomyces cerevisiae*. *Biochim. Biophys. Acta* 1793: 561-571.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **caspase-10 p10 (E-11): sc-393983** or **caspase-10 (WW-H4): sc-134299**, our highly recommended monoclonal alternatives to caspase-10 p10 (N-19).