SANTA CRUZ BIOTECHNOLOGY, INC.

caspase-10 p20 (H-131): sc-7955

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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, cleave the nuclear protein PARP into an apoptotic fragment. Caspase-6, but not caspase-3, cleaves the nuclear lamins which are critical to maintaining the integrity of the nuclear envelope and cellular morphology. caspase-10 activates caspase-3 and caspase-7 in response to apoptotic stimuli.

REFERENCES

1. Lindahl, T., et al. 1995. Post-translational 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.

CHROMOSOMAL LOCATION

Genetic locus: CASP10 (human) mapping to 2q33.1

SOURCE

caspase-10 p20 (H-131) is a rabbit polyclonal antibody raised against amino acids 220-350 mapping within an internal region of caspase-10 p20 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-10 p20 (H-131) is recommended for detection of p20 subunit and caspase-10 precursor 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.

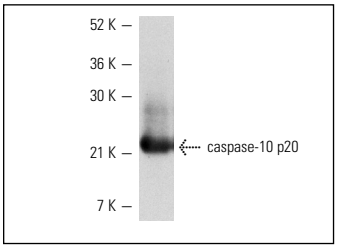
Molecular Weight of caspase-10 p20: 58/20 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

STORAGE

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

DATA



caspase-10 p20 (H-131): sc-7955. Western blot analysis of human recombinant caspase-10 p20.

SELECT PRODUCT CITATIONS

1. Qiu, J., et al. 2002. Upregulation of the FAS receptor death-inducing signaling complex after traumatic brain injury in mice and humans. J. Neurosci. 22: 3504-3511.
2. Giampietri, C., et al. 2003. FLIP is expressed in mouse testis and protects germ cells from apoptosis. Cell Death Differ. 10: 175-184.
3. Tourneur, L., et al. 2003. Loss of FADD protein expression results in a biased FAS-signaling pathway and correlates with the development of tumoral status in thyroid follicular cells. Oncogene 22: 2795-2804.
4. Lecomte, M., et al. 2004. Involvement of caspase-10 in advanced glycation end-product-induced apoptosis of bovine retinal pericytes in culture. Biochim. Biophys. Acta 1689: 202-211.
5. Zhang, Y.J., et al. 2005. Mechanism of anti-apoptotic action of dipfluzine on neuronal damage of the rat hippocampal CA1 region subjected to transient forebrain ischemia. Yao Xue Xue Bao 40: 97-104.
6. You, Z., et al. 2006. Interleukin-17 receptor-like gene is a novel antiapoptotic gene highly expressed in androgen-independent prostate cancer. Cancer Res. 66: 175-183.
7. Butin-Israeli, V., et al. 2010. Simian virus 40 infection triggers balanced network that includes apoptotic, survival and stress pathways. J. Virol. 84: 3431-3442.

RESEARCH USE

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