SANTA CRUZ BIOTECHNOLOGY, INC.

caspase-6 p10 (A-16): sc-1231

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: CASP6 (human) mapping to 4q25; Casp6 (mouse) mapping to 3 G3.

SOURCE

caspase-6 p10 (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of caspase-6 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.

Blocking peptide available for competition studies, sc-1231 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

caspase-6 p10 (A-16) is recommended for detection of p10 subunit and precursor of caspase-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-6 p10 (A-16) is also recommended for detection of p10 subunit and precursor of caspase-6 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for caspase-6 siRNA (h): sc-72802, caspase-6 siRNA (m): sc-72803, caspase-6 shRNA Plasmid (h): sc-72802-SH, caspase-6 shRNA Plasmid (m): sc-72803-SH, caspase-6 shRNA (h) Lentiviral Particles: sc-72802-V and caspase-6 shRNA (m) Lentiviral Particles: sc-72803-V.

Molecular Weight of caspase-6 p10: 34 kDa.

Positive Controls: Jurkat + PMA cell lysate: sc-24718, Jurkat whole cell lysate: sc-2204 or mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Cuvillier, O., et al. 1998. Sphingosine 1-phosphate inhibits activation of caspases that cleave poly (ADP-ribose) polymerase and lamins during Fas- and ceramide-mediated apoptosis in Jurkat T lymphocytes. J. Biol. Chem. 273: 2910-2906.
2. West, T., et al. 2006. Caspase-3 deficiency during development increases vulnerability to hypoxic-ischemic injury through caspase-3-independent pathways. Neurobiol. Dis. 22: 523-537.
3. Raymond, A.A., et al. 2007. Nine procaspases are expressed in normal human epidermis, but only caspase-14 is fully processed. Br. J. Dermatol. 156: 420-427.
4. Harish Kumar, G., et al. 2010. The neem limonoids azadirachtin and nimbolide inhibit cell proliferation and induce apoptosis in an animal model of oral oncogenesis. Invest. New Drugs 28: 392-401.
5. 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.
6. Manikandan, P., et al. 2011. Eugenol inhibits cell proliferation via NFκB suppression in a rat model of gastric carcinogenesis induced by MNNG. Invest. New Drugs 29: 110-117.
7. Hsieh, S.C., et al. 2013. α-Mangostin induces mitochondrial dependent apoptosis in human hepatoma SK-Hep-1 cells through inhibition of p38 MAPK pathway. Apoptosis 18: 1548-1560.

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.