SANTA CRUZ BIOTECHNOLOGY, INC.

cleaved caspase-6 p10 (h194): sc-22177

BACKGROUND

Activation of cysteine-aspartic acid proteases (caspases) is a key indicator of cell apoptosis. The human caspase-6 gene maps to chromosome 4q25 and encodes the inactive proenzyme. Proteolytic processing at aspartate residues in the caspase-6 proenzyme produces small and large subunits that coordinate into an active dimer. Caspases 7, 8 and 10 are capable of processing caspase-6 into an active dimer which plays a terminal role in the caspase activation cascade. Alternative splicing of this gene results in two transcript variants which encode different isoforms. Cytochrome c activation of Jurkat cells produces active caspase-6 in a two-step cleaving process that requires the removal of a prodomain (aa#1-23, 180-193) and formation of a 156 residue (aa#24-179) and 100 residue (aa#193-293) subunits. Serum-deprivation in neurons induces caspase-6-dependent cleavage of amyloid precursor protein.

REFERENCES

1. LeBlanc, A., et al. 1999. Caspase-6 role in apoptosis of human neurons, amyloidogenesis, and Alzheimer's disease. J. Biol. Chem. 274: 23426-23436. PMID: 10438520.
2. Online Mendelian Inheritance in Man, OMIM (TM). Johns Hopkins University, Baltimore, MD. MIM Number: 601532: 1/2/2001. World Wide Web URL: http://www.ncbi.nlm. nih.gov/omim/
3. Cowling, V., et al. 2002. Caspase-6 is the direct activator of caspase-8 in the cytochrome c-induced apoptosis pathway: absolute requirement for removal of caspase-6 prodomain. Cell Death Differ 9: 1046-1056. PMID: 12232792.
4. LocusLink Report (LocusID: 839). http://www.ncbi.nlm. nih.gov/LocusLink/
5. SWISS-PROT/TrEMBL (P55212). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

SOURCE

cleaved caspase-6 p10 (h194) is a goat polyclonal antibody raised against a short amino acid sequence containing the neoepitope at Asp 194 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-22177 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

cleaved caspase-6 p10 (h194) is recommended for detection of the p10 subunit of caspase-6 of 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); non cross-reactive with full length caspase-6 .

Molecular Weight of cleaved caspase-6 p10: 10 kDa.

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.