SANTA CRUZ BIOTECHNOLOGY, INC.

caspase-6 p20 (K-20): sc-1232

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, 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 H1.

SOURCE

caspase-6 p20 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of caspase-6 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.

Blocking peptide available for competition studies, sc-1232 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

caspase-6 p20 (K-20) is recommended for detection of p20 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), 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); partially cross-reactive with caspase-1, 2, 3 and 14.

caspase-6 p20 (K-20) is also recommended for detection of p20 subunit and precursor of caspase-6 in additional species, including equine, canine, bovine and porcine.

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.

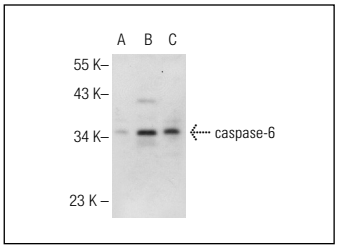
Molecular Weight of caspase-6 p20: 34 kDa.

Positive Controls: caspase-6 (h): 293T Lysate: sc-175853 or 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-6 p20 (K-20): sc-1232. Western blot analysis of caspase-6 expression in non-transfected 293T: sc-117752 (**A**), human caspase-6 transfected 293T: sc-175853 (**B**) and Jurkat (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wride, M.A., et al. 1999. Members of the Bcl-2 and caspase families regulate nuclear degeneration during chick lens fibre differentiation. Dev. Biol. 213: 142-156.
2. Ferrer, I. 1999. Role of caspases in ionizing radiation-induced apoptosis in the developing cerebellum. J. Neurobiol. 41: 549-558.
3. Ferrer, I., et al. 2000. Differential c-Fos and caspase expression following kainic acid excitotoxicity. Acta Neuropathol. 99: 245-256.
4. Yang, X.H., et al. 2001. Reconstitution of caspase 3 sensitizes MCF-7 breast cancer cells to doxorubicin- and etoposide-induced apoptosis. Cancer Res. 61: 348-354.
5. Luciano, F., et al. 2001. Cleavage of Fyn and Lyn in their N-terminal unique regions during induction of apoptosis: a new mechanism for Src kinase regulation. Oncogene 20: 4935-4941.
6. Krupinski, J., et al. 2002. CDP-choline reduces pro-caspase and cleaved caspase-3 expression, nuclear DNA fragmentation, and specific PARP-cleaved products of caspase activation following middle cerebral artery occlusion in the rat. Neuropharmacology 42: 846-854.
7. Yang, X.H., et al. 2005. Reconstitution of caspase-3 sensitizes MCF-7 breast cancer cells to radiation therapy. Int. J. Oncol. 26: 1675-1680.
8. Siendones, E., et al. 2005. PGE1 abolishes the mitochondrial-independent cell death pathway induced by D-galactosamine in primary culture of rat hepatocytes. J. Gastroenterol. Hepatol. 20: 108-116.

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.