

cleaved caspase-7 p10 (h207): sc-22179

BACKGROUND

Caspases are cysteine proteases which play important roles in the activation of cytokines and in apoptosis. Caspase-7 is also known as CE-LAP3 (for IL-1 converting enzyme-like apoptotic protease 3), MCH3, and CMH-1. Caspase-7 is a member of the CED-3 subfamily of caspases and is a 303 amino acid protein with significant similarity to caspase-3. Caspase-3 and -7 represent executioner/effector caspases that directly cause apoptotic morphological changes by cleaving various death substrates. The human caspase-7 maps to chromosome 10q25.1-q25.2 and encodes a 35 kDa protein that is cleaved into p20 and p10 active subunits. The heterodimeric Caspase-7 is activated to its catalytically active large subunit in intact cells undergoing apoptosis. Caspase-7 is a cytoplasmic protein expressed in fetal and adult tissues including lung, skeletal muscle, liver, kidney, spleen and heart, as well as various cell lines, such as Jurkat cells.

REFERENCES

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2. Cohen, G.M. 1997. Caspases: the executioners of apoptosis. *Biochem. J.* 326: 1-16.
3. Araya, R., et al. 2002. Yeast two-hybrid screening using constitutive-active caspase-7 as bait in the identification of PA28 γ as an effector caspase substrate. *Cell Death Differ.* 9: 322-328.
4. SWISS-PROT/TrEMBL (P55210). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
5. Soung, Y.H., et al. 2003. Inactivating mutations of CASPASE-7 gene in human cancers. *Oncogene* 22: 8048-8052.
6. Korfali, N., et al. 2004. Caspase-7 gene disruption reveals an involvement of the enzyme during the early stages of apoptosis. *J. Biol. Chem.* 279: 1030-1039.

CHROMOSOMAL LOCATION

Genetic locus: CASP7 (human) mapping to 10q25.3.

SOURCE

cleaved caspase-7 p10 (h207) is a goat polyclonal antibody raised against a short amino acid sequence containing the neopeptide at Ala 207 of caspase-7 p10 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22179 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

cleaved caspase-7 p10 (h207) is recommended for detection of the p10 subunit of caspase-7 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-7.

Suitable for use as control antibody for caspase-7 siRNA (h): sc-29929, caspase-7 shRNA Plasmid (h): sc-29929-SH and caspase-7 shRNA (h) Lentiviral Particles: sc-29929-V.

Molecular Weight of cleaved caspase-7 p10: 10 kDa.

Positive Controls: HeLa whole cell lysate : sc-2200 or Jurkat whole cell lysate: sc-2204

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.

STORAGE

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

PROTOCOLS

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