SANTA CRUZ BIOTECHNOLOGY, INC.

cleaved caspase-10 p12 (h416): sc-22184

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Caspase-10, also designated Mch4, is recruited to the native TRAIL and CD9 death-inducing signaling complexes (DISCs) by the FADD/Mort1 adaptor protein complex. Caspase-10 requires the assembly of the FADD and DISC complexes for its recruitment and cleavage-induced activation during CD95-induced apoptosis of activated T cells. The N-terminus of caspase-10 contains FADD-like death effector domains further indicating that it associates with FADD to induce apoptosis. Caspase-10 is not required for apoptosis induction and when overexpressed, cannot reverse defects in apoptosis induction caused by caspase-8 deficiency. Granzyme B cleaves procaspase-10 at an IXXD-A processing sequence to produce mature caspase-10. Mutations in the caspase-10 gene in the prodomain, p17 large protease subunit and p12 small protease subunit have been linked to a number of non-Hodgkin lymphomas in humans.

REFERENCES

1. Fernandes-Alnemri, T., et al. 1996. *In vitro* activation of CPP32 and Mch3 by Mch4, a novel human apoptotic cysteine protease containing two FADD-like domains. Proc. Natl. Acad. Sci. 93: 7464-7469.
2. Kischkel, F.C., et al. 2001. Death receptor recruitment of endogenous caspase-10 and apoptosis initiation in the absence of caspase-8. J Biol. Chem. 276: 46639-46646.
3. Sprick, M.R., et al. 2002. Caspase-10 is recruited to and activated at the native TRAIL and CD95 death-inducing signalling complexes in a FADD-dependent manner but can not functionally substitute caspase-8. EMBO J. 21: 4520-4530.
4. Shin, M.S., et al. 2002. Inactivating mutations of CASP10 gene in non-Hodgkin lymphomas. Blood. 99: 4094-4099.

CHROMOSOMAL LOCATION

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

SOURCE

cleaved caspase-10 p12 (h416) is a goat polyclonal antibody raised against a short amino acid sequence containing the neoepitope at Ala 416 of caspase-10 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22184 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

cleaved caspase-10 p12 (h416) is recommended for detection of the p12 subunit of caspase-10 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-10.

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 cleaved caspase-10 p12: 12 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.

RESEARCH USE

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