SANTA CRUZ BIOTECHNOLOGY, INC.

c-IAP1 (D-19): sc-1869

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The baculovirus protein p35 inhibits virally induced apoptosis of invertebrate and mammalian cells and may function to impair the clearing of virally infected cells by the host's immune system. This is accomplished at least in part by its ability to block both TNF- and FAS-mediated apoptosis through the inhibition of the ICE family of serine proteases. Two mammalian homologs of baculovirus p35, referred to as inhibitor of apoptosis protein (IAP) 1 and 2, respectively, have been described. The two proteins share an amino terminal baculovirus IAP repeat (BIR) motif and a carboxy terminal ring finger. Although the c-IAPs do not directly associate with the TNF receptor (TNF-R), they efficiently block TNF-mediated apoptosis through their interaction with the downstream TNF-R effectors, TRAF1 and TRAF2. The interaction between the TRAF1/TRAF2 heterocomplexes and c-IAPs is dependent on a functional BIR motif.

REFERENCES

1. Hay, B.A., et al. 1994. Expression of baculovirus p35 prevents cell death in *Drosophila*. Development 120: 2121-2129.
2. Clem, R.J. and Miller, L.K. 1994. Control of programmed cell death by the baculovirus genes p35 and IAP. Mol. Cell. Biol. 14: 5212-5222.
3. Beidler, D.R., et al. 1995. The baculovirus p35 protein inhibits Fas- and tumor necrosis factor-induced apoptosis. J. Biol. Chem. 270: 16526-16528.
4. Xue, D. and Horvitz, H.R. 1995. Inhibition of the *Caenorhabditis elegans* cell-death protease CED-3 by a CED-3 cleavage site in baculovirus p35 protein. Nature 377: 248-251.
5. Bump, N.J., et al. 1995. Inhibition of ICE family proteases by baculovirus antiapoptotic protein p35. Science 269: 1885-1888.
6. Rothe, M., et al. 1995. The TNFR2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins. Cell 83: 1243-1252.
7. Duckett, C.S., et al. 1996. A conserved family of cellular genes related to the baculovirus IAP gene and encoding apoptosis inhibitors. EMBO J. 15: 2685-2694.
8. Uren, A.G., et al. 1996. Cloning and expression of apoptosis inhibitory protein homologs that function to inhibit apoptosis and/or bind tumor necrosis factor receptor-associated factors. Proc. Natl. Acad. Sci. USA 93: 4974-4978.

CHROMOSOMAL LOCATION

Genetic locus: Birc2 (mouse) mapping to 9 A1.

SOURCE

c-IAP1 (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of c-IAP1 of mouse origin.

STORAGE

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

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-1869 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

c-IAP1 (D-19) is recommended for detection of c-IAP1 of mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

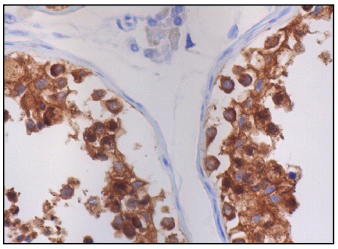
Suitable for use as control antibody for c-IAP1 siRNA (m): sc-29849, c-IAP1 shRNA Plasmid (m): sc-29849-SH and c-IAP1 shRNA (m) Lentiviral Particles: sc-29849-V.

Molecular Weight of c-IAP1: 70 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



c-IAP1 Antibody (D-19): sc-1869. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and nuclear staining of cells in seminiferous ducts.

SELECT PRODUCT CITATIONS

1. Zhu, X.D., et al. 2003. Expression of survivin in human gastric carcinoma and gastric carcinoma model of rats. World J. Gastroenterol. 9: 1435-1438.

RESEARCH USE

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