

c-IAP2 (Ac-71): sc-517317

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 immune system of the host. This is accomplished at least in part by the ability of p35 to block both TNF- and FAS-mediated apoptosis through the inhibition of the ICE family of serine proteases. Three mammalian homologs of baculovirus p35, designated MIHA (mammalian IAP homolog A), MIHB and MIHC have been described. These three mammalian inhibitor of apoptosis proteins (IAPs) are designated XIAP, c-IAP1 and c-IAP2, respectively. XIAP, c-IAP1 and c-IAP2 share an N-terminal baculovirus IAP repeat (BIR) motif and a C-terminal RING finger. Although c-IAP1 and c-IAP2 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

- Hay, B.A., et al. 1994. Expression of baculovirus p35 prevents cell death in *Drosophila*. *Development* 120: 2121-2129.
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- Xue, D., et al. 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.
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- 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.

CHROMOSOMAL LOCATION

Genetic locus: BIRC3 (human) mapping to 11q22.2.

SOURCE

c-IAP2 (Ac-71) is a mouse monoclonal antibody raised against a recombinant protein corresponding to c-IAP2 of human origin.

PRODUCT

Each vial contains 50 µl ascites containing IgG₁ kappa light chain with < 0.1% sodium azide.

RESEARCH USE

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

APPLICATIONS

c-IAP2 (Ac-71) is recommended for detection of c-IAP2 of human origin by Western Blotting (starting dilution: to be determined by researcher, dilution range 1:100-1:5000).

Suitable for use as control antibody for c-IAP2 siRNA (h): sc-29850, c-IAP2 shRNA Plasmid (h): sc-29850-SH and c-IAP2 shRNA (h) Lentiviral Particles: sc-29850-V.

Molecular Weight of c-IAP2: 68 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

SELECT PRODUCT CITATIONS

- Zheng, Y., et al. 2017. Genistein exerts potent antitumour effects alongside anaesthetic, propofol, by suppressing cell proliferation and nuclear factor-κB-mediated signalling and through upregulating microRNA-218 expression in an intracranial rat brain tumour model. *J. Pharm. Pharmacol.* 69: 1565-1577.
- Xue, Y., et al. 2018. Downregulation of frizzled-7 induces the apoptosis of hepatocellular carcinoma cells through inhibition of NFκB. *Oncol. Lett.* 15: 7693-7701.
- Kim, S.A., et al. 2018. Cryptotanshinone induces cell cycle arrest and apoptosis of NSCLC cells through the PI3K/Akt/GSK-3β pathway. *Int. J. Mol. Sci.* 19: 2739.
- Wu, Z., et al. 2019. Synchronous co-expression of Id-1 and nuclear NFκB p65 promotes cervical cancer progression and malignancy, and is associated with a poor prognosis and chemosensitivity. *Oncol. Rep.* 42: 2075-2086.
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- Jang, J.H., et al. 2022. Dapagliflozin induces apoptosis by downregulating cFLIP_L and increasing cFLIP_S instability in Caki-1 cells. *Oncol. Lett.* 24: 401.
- Rafat, S., et al. 2022. SMAC mimetic BV6 co-treatment downregulates the factors involved in resistance and relapse of cancer: IAPs and autophagy. *Biology* 11: 1581.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.