SANTA CRUZ BIOTECHNOLOGY, INC.

c-IAP1 (F-4): sc-271419

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 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.

CHROMOSOMAL LOCATION

Genetic locus: BIRC2 (human) mapping to 11q22.2.

SOURCE

c-IAP1 (F-4) is a mouse monoclonal antibody raised against amino acids 111-193 mapping within an internal region of c-IAP1 (inhibitor of apoptosis protein 1) of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

c-IAP1 (F-4) is available conjugated to agarose (sc-271419 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271419 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271419 PE), fluorescein (sc-271419 FITC), Alexa Fluor® 488 (sc-271419 AF488), Alexa Fluor® 546 (sc-271419 AF546), Alexa Fluor® 594 (sc-271419 AF594) or Alexa Fluor® 647 (sc-271419 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271419 AF680) or Alexa Fluor® 790 (sc-271419 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

c-IAP1 (F-4) is recommended for detection of c-IAP1 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for c-IAP1 siRNA (h): sc-29848, c-IAP1 shRNA Plasmid (h): sc-29848-SH and c-IAP1 shRNA (h) Lentiviral Particles: sc-29848-V.

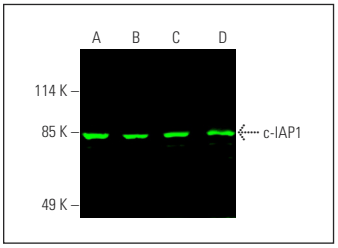
Molecular Weight of c-IAP1: 70 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, HeLa whole cell lysate: sc-2200 or MOLT-4 cell lysate: sc-2233.

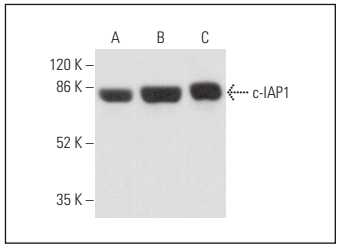
STORAGE

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

DATA



c-IAP1 (F-4): sc-271419. Near-infrared western blot analysis of c-IAP1 expression in HeLa (**A**), Jurkat (**B**), Raji (**C**) and MOLT-4 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



c-IAP1 (F-4): sc-271419. Western blot analysis of c-IAP1 expression in MOLT-4 (**A**), Raji (**B**) and HeLa (**C**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Sabatini, N., et al. 2004. PI-3-kinase/NFκB mediated response of Jurkat T leukemic cells to two different chemotherapeutic drugs, etoposide and TRAIL. J. Cell. Biochem. 93: 301-311.
2. Yadav, V.R., et al. 2013. Preclinical evaluation of 4-[3,5-bis(2-chlorobenzylidene)-4-oxo-piperidine-1-yl]-4-oxo-2-butenoic acid, in a mouse model of lung cancer xenograft. Br. J. Pharmacol. 170: 1436-1448.
3. Luan, Q., et al. 2015. RIPK1 regulates survival of human melanoma cells upon endoplasmic reticulum stress through autophagy. Autophagy 11: 975-994.
4. Bai, X., et al. 2016. Effects of maslinic acid on the proliferation and apoptosis of A549 lung cancer cells. Mol. Med. Rep. 13: 117-122.
5. Zhou, X., et al. 2017. Perfluorodecanoic acid stimulates NLRP3 inflammasome assembly in gastric cells. Sci. Rep. 7: 45468.
6. 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.
7. Aasen, S.N., et al. 2019. Effective treatment of metastatic melanoma by combining MAPK and PI3K signaling pathway inhibitors. Int. J. Mol. Sci. 20: 4235.
8. Rayego-Mateos, S., et al. 2020. TRAF3 modulation: novel mechanism for the anti-inflammatory effects of the vitamin D receptor agonist paricalcitol in renal disease. J. Am. Soc. Nephrol. 31: 2026-2042.
9. Kitamura, Y., et al. 2021. Anti-EGFR VHH-armed death receptor ligand-engineered allogeneic stem cells have therapeutic efficacy in diverse brain metastatic breast cancers. Sci. Adv. 7: eabe8671.

RESEARCH USE

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