SANTA CRUZ BIOTECHNOLOGY, INC.

XIAP (h): 293T Lysate: sc-115280



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 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, share an amino-terminal baculovirus IAP repeat (BIR) motif and a carboxyterminal 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. Additional IAP family members include XIAP and survivin. XIAP inhibits activated caspase-3, leading to the resistance of FAS-mediated apoptosis. Survivin (also designated TIAP) is expressed during the G2/M phase of the cell cycle and associates with microtublules of the mitotic spindle. In-creased caspase-3 activity is detected when a disruption of survivin-microtubule interactions occurs.

REFERENCES

- 1. Hay, B.A., Wolff, T. and Rubin, G.M. 1994. Expression of baculovirus p35 prevents cell death in *Drosophila*. Development 120: 2121-2129.
- Beidler, D.R., Tewari, M., Friesen, P.D., Poirier, G. and Dixit, V.M. 1995. The baculovirus p35 protein inhibits Fas- and tumor necrosis factor-induced apoptosis. J. Biol. Chem. 270: 16526-16528.
- Bump, N.J., Hackett, M., Hugunin, M., Seshagiri, S., Brady, K., Chen, P., Ferenz, C., Franklin, S., Ghayur, T. and Li, P. 1995. Inhibition of ICE family proteases by baculovirus antiapoptotic protein p35. Science 269: 1885-1888.
- Rothe, M., Pan, M.G., Henzel, W.J., Ayres, T.M. and Goeddel, D.V. 1995. The TNFR2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins. Cell 83: 1243-1252.
- Uren, A.G., Pakusch, M., Hawkins, C.J., Puls, K.L. and Vaux, D.L. 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.
- Suzuki, A., Tsutomi, Y., Akahane, K., Araki, T. and Miura, M. 1998. Resistance to Fas-mediated apoptosis: activation of caspase 3 is regulated by cell cycle regulator p21WAF1 and IAP gene family ILP. Oncogene 17: 931-939.
- Li, F., Ambrosini, G., Chu, E.Y., Plescia, J., Tognin, S., Marchisio, P.C. and Altieri, D.C. 1998. Control of apoptosis and mitotic spindle checkpoint by survivin. Nature 396: 580-584.

CHROMOSOMAL LOCATION

Genetic locus: XIAP (human) mapping to Xq25.

PRODUCT

XIAP (h): 293T Lysate represents a lysate of human XIAP transfected 293T cells and is provided as 100 μ g protein in 200 μ I SDS-PAGE buffer.

APPLICATIONS

XIAP (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive XIAP antibodies. Recommended use: 10-20 μI per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

XIAP (D-2): sc-55552 is recommended as a positive control antibody for Western Blot analysis of enhanced human XIAP expression in XIAP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgGκ BP-HRP: sc-516102 or m-lgGκ 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.

DATA



XIAP (D-2): sc-55552. Western blot analysis of XIAP expression in non-transfected: sc-117752 (**A**) and human XIAP transfected: sc-115280 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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