ML-IAP (h): 293T Lysate: sc-159337



The Power to Question

BACKGROUND

Inhibitor of apoptosis proteins (IAPs) contain conserved, unique N-terminal baculovirus IAP repeats (BIRs) and usually a C-terminal RING finger domain. Immunoprecipitation and Western blot analysis indicate that ML-IAP, also known as melanoma inhibitor of apoptosis protein, kidney inhibitor of apoptosis protein (KIAP), livin or BIRC7, binds to caspase-3, -7 and -9, but only inhibits caspase-9. Additionally, ML-IAP physically interacts with Smac through its BIR domain in a highly specific manner. The gene which encodes ML-IAP maps to human chromosome 20q13.33. There is controversy regarding the localization of this protein and its involvement in apoptosis, but it has been suggested that ML-IAP may play a complex role in the regulation of apoptosis.

REFERENCES

- Vucic, D., Stennicke, H.R., Pisabarro, M.T., Salvesen, G.S. and Dixit, V.M. 2000. ML-IAP, a novel inhibitor of apoptosis that is preferentially expressed in human melanomas. Curr. Biol. 10: 1359-1366.
- 2. Lin, J.H., Deng, G., Huang, Q. and Morser, J. 2000. KIAP, a novel member of the inhibitor of apoptosis protein family. Biochem. Biophys. Res. Commun. 279: 820-831.
- 3. Kasof, G.M. and Gomes B.C. 2001. Livin, a novel inhibitor of apoptosis protein family member. J. Biol. Chem. 276: 3238-3246.
- Ashhab, Y., Alian, A., Polliack, A., Panet, A. and Ben Yehuda, D. 2001. Two splicing variants of a new inhibitor of apoptosis gene with different biological properties and tissue distribution pattern. FEBS Lett. 495: 56-60.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605737. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Vucic, D., Deshayes, K., Ackerly, H., Pisabarro, M.T., Kadkhodayan, S., Fairbrother, W.J. and Dixit, V.M. 2002. SMAC negatively regulates the anti-apoptotic activity of melanoma inhibitor of apoptosis (ML-IAP). J. Biol. Chem. 277: 12275-12279.
- Franklin, M.C., Kadkhodayan, S., Ackerly, H., Alexandru, D., Distefano, M.D., Elliott, L.O., Flygare, J.A., Mausisa, G., Okawa, D.C., Ong, D., Vucic, D., Deshayes, K. and Fairbrother, W.J. 2003. Structure and function analysis of peptide antagonists of melanoma inhibitor of apoptosis (ML-IAP). Biochemistry 42: 8223-8231.
- Andersen, M.H., Becker, J.C. and Straten, P. 2004. Identification of an HLA-A3-restricted cytotoxic T lymphocyte (CTL) epitope from ML-IAP. J. Invest. Dermatol. 122: 1336-1337.
- Vucic, D., Franklin, M.C., Wallweber, H.J., Das, K., Eckelman, B.P., Shin, H., Elliott, L.O., Kadkhodayan, S., Deshayes, K., Salvesen, G.S. and Fairbrother, W.J. 2004. Engineering ML-IAP to produce an extraordinarily potent caspase 9 inhibitor: implications for Smac-dependent anti-apoptotic activity of ML-IAP. Biochem. J. 385: 11-20.

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.

CHROMOSOMAL LOCATION

Genetic locus: BIRC7 (human) mapping to 20q13.33.

PRODUCT

ML-IAP (h): 293T Lysate represents a lysate of human ML-IAP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

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

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

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**