SANTA CRUZ BIOTECHNOLOGY, INC.

ML-IAP (E-3): sc-393237

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 with a very high affinity and this interaction is very specific. 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

1. Vucic, D., et al. 2000. ML-IAP, a novel inhibitor of apoptosis that is preferentially expressed in human melanomas. Curr. Biol. 10: 1359-1366.
2. Lin, J.H., et al. 2000. KIAP, a novel member of the inhibitor of apoptosis protein family. Biochem. Biophys. Res. Commun. 279: 820-831.
3. Ashhab, Y., et al. 2001. Two splicing variants of a new inhibitor of apoptosis gene with different biological properties and tissue distribution pattern. FEBS Lett. 495: 56-60.

CHROMOSOMAL LOCATION

Genetic locus: BIRC7 (human) mapping to 20q13.33; Birc7 (mouse) mapping to 2 H4.

SOURCE

ML-IAP (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 72-97 near the N-terminus of ML-IAP 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.

ML-IAP (E-3) is available conjugated to agarose (sc-393237 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393237 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393237 PE), fluorescein (sc-393237 FITC), Alexa Fluor® 488 (sc-393237 AF488), Alexa Fluor® 546 (sc-393237 AF546), Alexa Fluor® 594 (sc-393237 AF594) or Alexa Fluor® 647 (sc-393237 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393237 AF680) or Alexa Fluor® 790 (sc-393237 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393237 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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

STORAGE

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

APPLICATIONS

ML-IAP (E-3) is recommended for detection of ML-IAP of mouse, rat and 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), 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 ML-IAP siRNA (h): sc-37510, ML-IAP siRNA (m): sc-149462, ML-IAP shRNA Plasmid (h): sc-37510-SH, ML-IAP shRNA Plasmid (m): sc-149462-SH, ML-IAP shRNA (h) Lentiviral Particles: sc-37510-V and ML-IAP shRNA (m) Lentiviral Particles: sc-149462-V.

Molecular Weight of full length ML-IAP: 40 kDa.

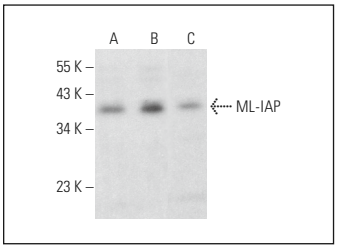
Molecular Weight of ML-IAP cleavage fragment: 30 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, 3T3-L1 cell lysate: sc-2243 or c4 whole cell lysate: sc-364186.

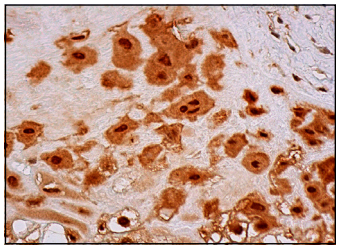
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ML-IAP (E-3): sc-393237. Western blot analysis of ML-IAP expression in NIH/3T3 (**A**), 3T3-L1 (**B**) and c4 (**C**) whole cell lysates.



ML-IAP (E-3): sc-393237. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and nuclear staining of decidual cells.

SELECT PRODUCT CITATIONS

1. Fan, L., et al. 2018. Upregulation of miR-185 promotes apoptosis of the human gastric cancer cell line MGC803. Mol. Med. Rep. 17: 3115-3122.

RESEARCH USE

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