

ML-IAP (A-1): sc-166390

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. Kasof, G.M., et al. 2001. Livin, a novel inhibitor of apoptosis protein family member. *J. Biol. Chem.* 276: 3238-3246.
4. 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.

SOURCE

ML-IAP (A-1) is a mouse monoclonal antibody raised against amino acids 151-240 mapping within an internal region of ML-IAP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ML-IAP (A-1) is recommended for detection of ML-IAP isoforms 1-3 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 ML-IAP siRNA (h): sc-37510, ML-IAP shRNA Plasmid (h): sc-37510-SH and ML-IAP shRNA (h) Lentiviral Particles: sc-37510-V.

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

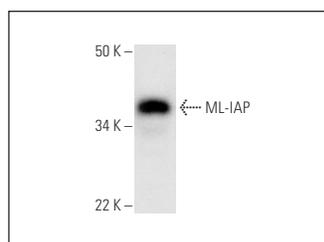
Molecular Weight of ML-IAP cleavage fragment: 30 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236 or H4 cell lysate: sc-2408.

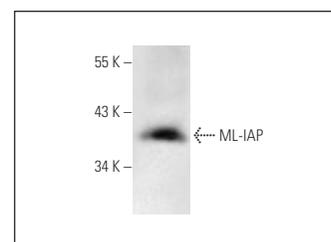
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ML-IAP (A-1): sc-166390. Western blot analysis of ML-IAP expression in SK-MEL-28 whole cell lysate.



ML-IAP (A-1): sc-166390. Western blot analysis of ML-IAP expression in H4 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Xue, D., et al. 2013. Expression and prognostic significance of livin, caspase-3, and ki-67 in the progression of human ampullary carcinoma. *Appl. Immunohistochem. Mol. Morphol.* 21: 525-531.
2. Zhuang, L., et al. 2015. Inhibition of livin expression suppresses cell proliferation and enhances chemosensitivity to cisplatin in human lung adenocarcinoma cells. *Mol. Med. Rep.* 12: 547-552.
3. Benedetti, R., et al. 2019. Inhibition of histone demethylases LSD1 and UTX regulates ERα signaling in breast cancer. *Cancers* 11 pii: E2027.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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.