

# MLSN1 (F-3): sc-515228

## BACKGROUND

The human melanocyte-specific gene melastatin, initially cloned from the retina, maps to chromosome 15q13.3. Melastatin protein, also designated MLSN1, is a 1,533 amino acid protein that is related to the transient receptor potential (Trp) calcium channel family of proteins, which mediate the transport of cations from the extracellular environment into the cytoplasm. MLSN1 expression is inversely proportional to melanocytic tumor proliferation, suggesting that normal levels of MLSN1 can suppress aggressive malignant melanoma growth. The downregulation of MLSN1 transcripts in malignant melanomas, such as primary cutaneous tumors, is a marker for metastasis and in some cases is independent of tumor thickness.

## REFERENCES

1. Hunter, J.J., et al. 1998. Chromosomal localization and genomic characterization of the mouse melastatin gene (Mln1). *Genomics* 54: 116-123.
2. Duncan, L.M., et al. 1998. Down-regulation of the novel gene melastatin correlates with potential for melanoma metastasis. *Cancer Res.* 58: 1515-1520.
3. Deeds, J., et al. 2000. Patterns of melastatin mRNA expression in melanocytic tumors. *Hum. Pathol.* 31: 1346-1356.
4. Fang, D. and Setaluri, V. 2000. Expression and Up-regulation of alternatively spliced transcripts of melastatin, a melanoma metastasis-related gene, in human melanoma cells. *Biochem. Biophys. Res. Commun.* 279: 53-61.

## CHROMOSOMAL LOCATION

Genetic locus: TRPM1 (human) mapping to 15q13.3.

## SOURCE

MLSN1 (F-3) is a mouse monoclonal antibody raised against amino acids 1304-1603 mapping at the C-terminus of MLSN1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MLSN1 (F-3) is available conjugated to agarose (sc-515228 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515228 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515228 PE), fluorescein (sc-515228 FITC), Alexa Fluor® 488 (sc-515228 AF488), Alexa Fluor® 546 (sc-515228 AF546), Alexa Fluor® 594 (sc-515228 AF594) or Alexa Fluor® 647 (sc-515228 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515228 AF680) or Alexa Fluor® 790 (sc-515228 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

MLSN1 (F-3) is recommended for detection of MLSN1 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 MLSN1 siRNA (h): sc-43936, MLSN1 shRNA Plasmid (h): sc-43936-SH and MLSN1 shRNA (h) Lentiviral Particles: sc-43936-V.

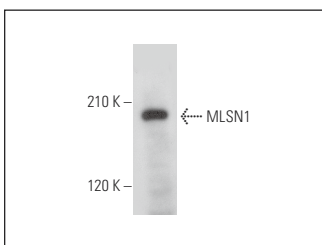
Molecular Weight of MLSN1: 200 kDa.

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

## 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



MLSN1 (F-3): sc-515228. Western blot analysis of MLSN1 expression in SK-MEL-28 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Shen, C.H., et al. 2021. AUY922 induces retinal toxicity through attenuating TRPM1. *J. Biomed. Sci.* 28: 55.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.