

MSL3L1 (E-7): sc-518210

BACKGROUND

Drosophila melanogaster is a proven and effective model for studying developmental and cellular processes common to higher eukaryotes. Approximately 13,600 genes have been elucidated from more than 120 megabases of euchromatin, and they are organized among the chromosomes 2, 3, 4, X and Y, with the Y chromosome being predominately heterochromatic. The male-specific lethal (MSL) genes (including MSL3L1 and MSL3L2) are essential for X-chromosome dosage compensation. The human gene MSL3L1 encodes a protein with significant homology to *Drosophila* MSL-3 in three distinct regions, which include two putative chromo domains. The MSL3L1 gene maps to a chromosomal location implicated in several disorders, including micro-phthalia with linear skin defects (MLS or MIDAS), OFD1 and SED tarda, as well as Aicardi syndrome and Goltz syndrome.

REFERENCES

1. Prakash, S.K., et al. 1999. Characterization of a novel chromo domain gene in xp22.3 with homology to *Drosophila* MSL-3. *Genomics* 59: 77-84.
2. Adams, M.D., et al. 2000. The genome sequence of *Drosophila melanogaster*. *Science* 287: 2185-2195.
3. Marín, I. and Baker, B.S. 2000. Origin and evolution of the regulatory gene male-specific lethal-3. *Mol. Biol. Evol.* 17: 1240-1250.
4. Birchler, J.A., et al. 2003. Dosage dependent gene regulation and the compensation of the X chromosome in *Drosophila* males. *Genetica* 117: 179-190.
5. Rea, S. and Akhtar, A. 2006. MSL proteins and the regulation of gene expression. *Curr. Top. Microbiol. Immunol.* 310: 117-140.
6. Mendjan, S. and Akhtar, A. 2007. The right dose for every sex. *Chromosoma* 116: 95-106.

CHROMOSOMAL LOCATION

Genetic locus: MSL3 (human) mapping to Xp22.2; Msl3 (mouse) mapping to X F5.

SOURCE

MSL3L1 (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 368-388 of MSL3L1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MSL3L1 (E-7) is available conjugated to agarose (sc-518210 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518210 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518210 PE), fluorescein (sc-518210 FITC), Alexa Fluor® 488 (sc-518210 AF488), Alexa Fluor® 546 (sc-518210 AF546), Alexa Fluor® 594 (sc-518210 AF594) or Alexa Fluor® 647 (sc-518210 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518210 AF680) or Alexa Fluor® 790 (sc-518210 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MSL3L1 (E-7) is recommended for detection of MSL3L1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MSL3L1 siRNA (h): sc-91157, MSL3L1 siRNA (m): sc-149661, MSL3L1 shRNA Plasmid (h): sc-91157-SH, MSL3L1 shRNA Plasmid (m): sc-149661-SH, MSL3L1 shRNA (h) Lentiviral Particles: sc-91157-V and MSL3L1 shRNA (m) Lentiviral Particles: sc-149661-V.

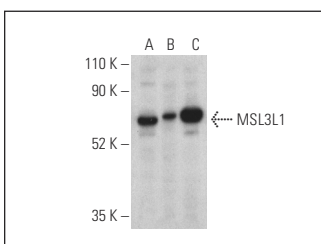
Molecular Weight of MSL3L1: 60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, IB4 whole cell lysate: sc-364780 or CCRF-CEM cell lysate: sc-2225.

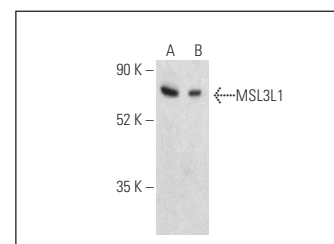
RECOMMENDED SUPPORT REAGENTS

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



MSL3L1 (E-7): sc-518210. Western blot analysis of MSL3L1 expression in CCRF-CEM (A), U266 (B) and IB4 (C) whole cell lysates. Detection reagent used: m-IgG₃ BP-HRP: sc-533670.



MSL3L1 (E-7): sc-518210. Western blot analysis of MSL3L1 expression in Jurkat (A) and RPMI-8226 (B) whole cell lysates. Detection reagent used: m-IgG₃ BP-HRP: sc-533670.

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.