SANTA CRUZ BIOTECHNOLOGY, INC.

MSL3L1 (G-19): sc-102028

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 microphthalmia 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.
7. Wimplinger, I., et al. 2007. Mother and daughter with a terminal Xp deletion: implication of chromosomal mosaicism and X-inactivation in the high clinical variability of the microphthalmia with linear skin defects (MLS) syndrome. Eur. J. Med. Genet. 50: 421-431.

CHROMOSOMAL LOCATION

Genetic locus: MSL3L1 (human) mapping to Xp22.2; Msl31 (mouse) mapping to X F5.

SOURCE

MSL3L1 (G-19) is a purified rabbit polyclonal antibody raised against MSL3L1 of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

MSL3L1 (G-19) is recommended for detection of MSL3L1 of mouse, rat, human and dog origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

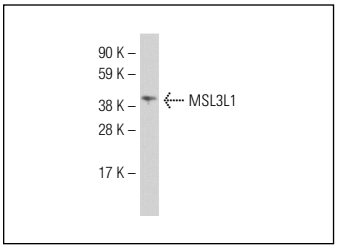
Suitable for use as control antibody for MSL3L1 siRNA (h): sc-91157, MSL3L1 siRNA (m): sc-149661, MSL3L1 shRNA Plasmid (h): sc-91157-SH, MSL3L1 shRNA Plasmid (m): sc-149661-SH, MSL3L1 shRNA (h) Lentiviral Particles: sc-91157-V and MSL3L1 shRNA (m) Lentiviral Particles: sc-149661-V.

Molecular Weight of MSL3L1: 60 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



MSL3L1 (G-19): sc-102028. Western blot analysis of MSL3L1 expression in fetal spleen tissue extract.

RESEARCH USE

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