

# MSL3L1 (K-12): sc-131608

## 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

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- Birchler, J.A., et al. 2003. Dosage dependent gene regulation and the compensation of the X chromosome in *Drosophila* males. *Genetica* 117: 179-190.
- Rea, S. and Akhtar, A. 2006. MSL proteins and the regulation of gene expression. *Curr. Top. Microbiol. Immunol.* 310: 117-140.
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- 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: MSL3 (human) mapping to Xp22.2; Msl3 (mouse) mapping to X F5.

## SOURCE

MSL3L1 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MSL3L1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131608 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

MSL3L1 (K-12) is recommended for detection of MSL3L1 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with family member MSL3L2.

MSL3L1 (K-12) is also recommended for detection of MSL3L1 isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

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 donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.