

MSL-1 (Q-19): sc-168661

BACKGROUND

MSL-1 (male-specific lethal 1 homolog (*Drosophila*)), also known as MSL1L1 (male-specific lethal 1-like 1), is a 614 amino acid nuclear protein that forms a multisubunit histone acetyltransferase complex with MOF, MSL-1, MSL-2 and MSL3L1. This complex is responsible for the majority of Histone H4 acetylation at lysine 16. Existing as three alternatively spliced isoforms, MSL-1 is a member of the MSL-1 family and is encoded by a gene that maps to human chromosome 17q21.1. Human chromosome 17 comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, and is linked to predisposition of cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

- Evans, S.C., et al. 1997. The Li-Fraumeni syndrome: an inherited susceptibility to cancer. *Mol. Med. Today* 3: 390-395.
- Kersemaekers, A.M., et al. 1998. Loss of heterozygosity for defined regions on chromosomes 3, 11 and 17 in carcinomas of the uterine cervix. *Br. J. Cancer* 77: 192-200.
- Piura, B., et al. 2001. Three primary malignancies related to BRCA mutation successively occurring in a BRCA1 185delAG mutation carrier. *Eur. J. Obstet. Gynecol. Reprod. Biol.* 97: 241-244.
- Minamoto, T., et al. 2001. Distinct pattern of p53 phosphorylation in human tumors. *Oncogene* 20: 3341-3347.
- Marín, I. 2003. Evolution of chromatin-remodeling complexes: comparative genomics reveals the ancient origin of "novel" compensasome genes. *J. Mol. Evol.* 56: 527-539.
- Smith, E.R., et al. 2005. A human protein complex homologous to the *Drosophila* MSL complex is responsible for the majority of histone H4 acetylation at lysine 16. *Mol. Cell. Biol.* 25: 9175-9188.

CHROMOSOMAL LOCATION

Genetic locus: MSL1 (human) mapping to 17q21.1; Msl1 (mouse) mapping to 11 D.

SOURCE

MSL-1 (Q-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MSL-1 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-168661 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

MSL-1 (Q-19) is recommended for detection of MSL-1 of mouse, rat and human 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)], 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 MSL3L1, MSL3L2 or RNF184.

MSL-1 (C-16) is also recommended for detection of MSL-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MSL-1 siRNA (m): sc-149660, MSL-1 shRNA Plasmid (m): sc-149660-SH and MSL-1 shRNA (m) Lentiviral Particles: sc-149660-V.

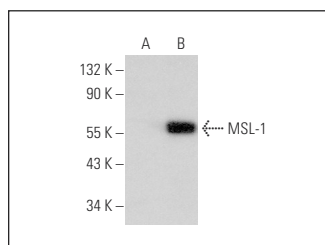
Molecular Weight of MSL-1 isoforms: 67/48/41 kDa.

Positive Controls: MSL-1 (h): 293T Lysate: sc-177568.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



MSL-1 (Q-19): sc-168661. Western blot analysis of MSL-1 expression in non-transfected: sc-117752 (A) and human MSL-1 transfected: sc-177568 (B) 293T whole cell lysates.

STORAGE

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



Try **MSL-1 (C-9): sc-514649**, our highly recommended monoclonal alternative to MSL-1 (Q-19).