

MSL2 (D4V2N) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	80	Rabbit IgG	#Q9HCI7	55167

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

MSL2 (D4V2N) Rabbit mAb recognizes endogenous levels of total MSL2 protein.

Species predicted to react based on 100% sequence homology

Bovine, Dog, Pig, Horse

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro210 of human MSL2 protein.

Background

Male-specific lethal 2-homolog (MSL2) is a component of the male-specific lethal (MSL) histone acetyltransferase complex, which contains MSL1, MSL2, MSL3, and MYST1. MYST1, also known as mammalian male absent on the first (MOF) and lysine acetyltransferase 8 (KAT8), is a member of the MYST (MOZ, YBF2, SAS2, and Tip60) family of histone acetyltransferases (1,2) and functions as the catalytic subunit of the MSL complex. The MSL complex is responsible for the majority of acetylation on histone H4 lysine 16 (3-5). In addition, as part of the MSL complex, MSL1 and MSL2 function as an E3 ubiquitin ligase to mono-ubiquitylate histone H2B on lysine 34 (6). The MSL complex plays a critical role in the regulation of transcription, DNA repair, autophagy, apoptosis, and embryonic stem cell pluripotency and differentiation (1,2,6,7). Loss of MSL activity leads to a global reduction in histone H4 lysine 16 acetylation, a common hallmark found in many human cancers. In particular, the reduction of MYST1 protein levels and histone H4 lysine 16 acetylation is associated with poor prognosis in breast, renal, colorectal, gastric, and ovarian cancers (1).

Background References

1. Yang, Y. et al. (2014) *Front Med* 8, 79-83.
2. Li, X. and Dou, Y. (2010) *Epigenetics* 5, 185-8.
3. Dou, Y. et al. (2005) *Cell* 121, 873-85.
4. Li, X. et al. (2009) *Mol Cell* 36, 290-301.
5. Cai, Y. et al. (2010) *J Biol Chem* 285, 4268-72.
6. Wu, L. et al. (2011) *Mol Cell* 43, 132-44.
7. Füllgrabe, J. et al. (2013) *Nature* 500, 468-71.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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