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MSL2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17353a

Product Information

Application	WB, E
Primary Accession	Q9HCI7
Other Accession	Q69ZF8, NP_001138889.1, NP_060603.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37273
Calculated MW	62541
Antigen Region	4-32

Additional Information

Gene ID	55167
Other Names	E3 ubiquitin-protein ligase MSL2, 632-, Male-specific lethal 2-like 1, MSL2-like 1, Male-specific lethal-2 homolog, MSL-2, Male-specific lethal-2 homolog 1, RING finger protein 184, MSL2, KIAA1585, MSL2L1, RNF184
Target/Specificity	This MSL2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 4-32 amino acids from the N-terminal region of human MSL2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MSL2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MSL2 {ECO:0000303|PubMed:16227571, ECO:0000312|HGNC:HGNC:25544}
Function	Non-catalytic component of the MSL histone acetyltransferase complex, a

multiprotein complex that mediates the majority of histone H4 acetylation at 'Lys-16' (H4K16ac), an epigenetic mark that prevents chromatin compaction (PubMed:16543150, PubMed:33837287). The MSL complex is required for chromosome stability and genome integrity by maintaining homeostatic levels of H4K16ac (PubMed:33837287). The MSL complex is also involved in gene dosage by promoting up-regulation of genes expressed by the X chromosome (By similarity). X up-regulation is required to compensate for autosomal biallelic expression (By similarity). The MSL complex also participates in gene dosage compensation by promoting expression of Tsix non-coding RNA (By similarity). MSL2 plays a key role in gene dosage by ensuring biallelic expression of a subset of dosage-sensitive genes, including many haploinsufficient genes (By similarity). Acts by promoting promoter-enhancer contacts, thereby preventing DNA methylation of one allele and creating a methylation-free environment for methylation-sensitive transcription factors such as SP1, KANSL1 and KANSL3 (By similarity). Also acts as an E3 ubiquitin ligase that promotes monoubiquitination of histone H2B at 'Lys-35' (H2BK34Ub), but not that of H2A (PubMed:21726816, PubMed:30930284). This activity is greatly enhanced by heterodimerization with MSL1 (PubMed:21726816, PubMed:30930284). H2B ubiquitination in turn stimulates histone H3 methylation at 'Lys-4' (H3K4me) and 'Lys-79' (H3K79me) and leads to gene activation, including that of HOXA9 and MEIS1 (PubMed:21726816). Also involved in the DNA damage response by mediating ubiquitination of TP53/p53 and TP53BP1 (PubMed:19033443, PubMed:23874665).

Cellular Location

Nucleus. Chromosome. Note=Associates with both promoters and enhancers of target genes, maintaining promoter-enhancer contacts {ECO:0000250|UniProtKB:Q69ZF8}

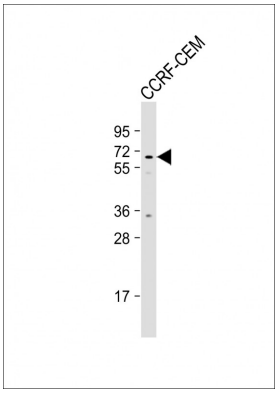
Background

Component of histone acetyltransferase complex responsible for the majority of histone H4 acetylation at lysine 16 which is implicated in the formation of higher-order chromatin structure.

References

Dehghan, A., et al. Circ Cardiovasc Genet 2(2):125-133(2009)
Mendjan, S., et al. Mol. Cell 21(6):811-823(2006)
Smith, E.R., et al. Mol. Cell. Biol. 25(21):9175-9188(2005)
Marin, I. J. Mol. Evol. 56(5):527-539(2003)
Lyman, L.M., et al. Genetics 147(4):1743-1753(1997)

Images



Anti-MSL2 Antibody (N-term) at 1:1000 dilution + CCRF-CEM whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 63kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.