

HMOF/MYST1 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1114b**Specification**

HMOF/MYST1 Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q9H7Z6
Other Accession	Q5XI06 , Q9D1P2
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	52403
Antigen Region	409-439

HMOF/MYST1 Antibody (C-term) - Additional Information**Gene ID** 84148**Other Names**

Histone acetyltransferase KAT8, Lysine acetyltransferase 8, MOZ, YBF2/SAS3, SAS2 and TIP60 protein 1, MYST-1, hMOF, KAT8, MOF, MYST1

Target/Specificity

This HMOF/MYST1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 409-439 amino acids from the C-terminal region of human HMOF/MYST1.

Dilution

WB~~1:1000

IHC-P~~1:10~50

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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

HMOF/MYST1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

HMOF/MYST1 Antibody (C-term) - Protein Information

Name KAT8 {ECO:0000303|PubMed:33657400, ECO:0000312|HGNC:HGNC:17933}

Function Histone acetyltransferase that catalyzes histone H4 acetylation at 'Lys-5'- and 'Lys-8' (H4K5ac and H4K8ac) or 'Lys-16' (H4K16ac), depending on the context (PubMed:[12397079](#), PubMed:[16227571](#), PubMed:[16543150](#), PubMed:[20018852](#), PubMed:[21217699](#), PubMed:[22020126](#), PubMed:[22547026](#), PubMed:[31794431](#), PubMed:[33837287](#)). 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:[12397079](#), PubMed:[16227571](#), PubMed:[16543150](#), PubMed:[21217699](#), PubMed:[22020126](#), PubMed:[22547026](#), PubMed:[33657400](#), PubMed:[33837287](#)). H4K16ac constitutes the only acetylation mark intergenerationally transmitted and regulates key biological processes, such as oogenesis, embryonic stem cell pluripotency, hematopoiesis or glucose metabolism (By similarity). 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). As part of the NSL histone acetyltransferase complex, catalyzes histone H4 acetylation at 'Lys-5'- and 'Lys-8' (H4K5ac and H4K8ac) at transcription start sites and promotes transcription initiation (PubMed:[20018852](#), PubMed:[22547026](#), PubMed:[33657400](#)). The NSL complex also acts as a regulator of gene expression in mitochondria: KAT8 associates with mitochondrial DNA and controls expression of respiratory genes in an acetyltransferase- dependent mechanism (PubMed:[27768893](#)). Also functions as an acetyltransferase for non-histone targets, such as ALKBH5, COX17, IRF3, KDM1A/LSD1, LMNA, PAX7 or TP53/p53 (PubMed:[17189187](#), PubMed:[19854137](#), PubMed:[37369679](#)). Acts as an inhibitor of antiviral immunity by acetylating IRF3, preventing IRF3 recruitment to promoters (By similarity). Acts as a regulator of asymmetric division in muscle stem cells by mediating acetylation of PAX7 (By similarity). As part of the NSL complex, acetylates TP53/p53 at 'Lys-120' (PubMed:[17189187](#), PubMed:[19854137](#)). Acts as a regulator of epithelial-to-mesenchymal transition as part of the NSL complex by mediating acetylation of KDM1A/LSD1 (PubMed:[27292636](#)). The NSL complex is required for nuclear architecture maintenance by mediating acetylation of LMNA (By similarity). Promotes mitochondrial integrity by catalyzing acetylation of COX17 (By similarity). In addition to protein acetyltransferase activity, able to mediate protein propionylation (PubMed:[29321206](#)).

Cellular Location

Nucleus. Chromosome Mitochondrion. Note=Translocated into the nucleus via its association with importin-alpha-1 (KPNA2) (PubMed:28991411). As part of the NSL complex, associates with the proximal part of promoters and transcription start sites (PubMed:33657400). As part of the MSL complex, associates with gene bodies (By similarity). Also localizes to mitochondria; associates with mitochondrial DNA and regulates mitochondrial gene expression (PubMed:27768893). {ECO:0000250|UniProtKB:Q9D1P2, ECO:0000269|PubMed:27768893, ECO:0000269|PubMed:28991411, ECO:0000269|PubMed:33657400}

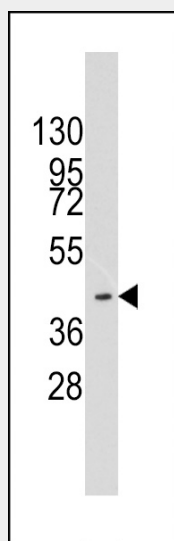
HMOF/MYST1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

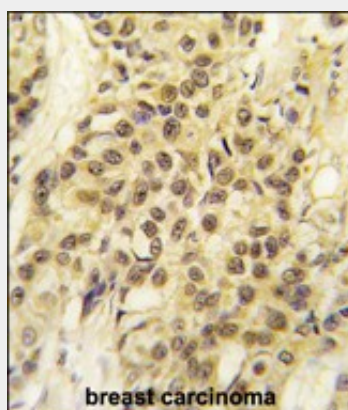
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

HMOF/MYST1 Antibody (C-term) - Images



Western blot analysis of anti-HMOF/MYST1(C-term) Pab (Cat.#AP1114b) in K562 cell line lysates (35ug/lane). HMOF/MYST1(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with HMOF/MYST1 antibody (C-term) (Cat.#AP1114b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

HMOF/MYST1 Antibody (C-term) - Background

The MYST family of histone acetyltransferases, which includes MYST1, is named for the founding members MOZ (MYST3; MIM 601408), yeast YBF2 and SAS2, and TIP60 (HTATIP; MIM 601409). All members of this family contain a MYST region of about 240 amino acids with a canonical acetyl-CoA-binding site and a C2HC-type zinc finger motif. Most MYST proteins also have a chromodomain involved in protein-protein interactions and targeting transcriptional regulators to chromatin (Neal et al., 2000 [PubMed 10786633]).[supplied by OMIM].

HMOF/MYST1 Antibody (C-term) - References

Rea,S.,Oncogene 26 (37), 5385-5394 (2007)
Pfister,S.,Int. J. Cancer 122 (6), 1207-1213 (2008)
Gupta,A.,Mol. Cell. Biol. 28 (1), 397-409 (2008)