10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Recombinant Anti-KAT8 Rabbit mAb

Catalog # AP95196

## Product Information

| | |
|---|---|
| **Application** | WB, IHC, FC, IP, IF/IC |
| **Primary Accession** | Q9H7Z6 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Monoclonal |
| **Calculated MW** | 52403 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 84148 |
| **Other Names** | MOF; MYST1; Histone acetyltransferase KAT8; Lysine acetyltransferase 8; MOZ, YBF2/SAS3, SAS2 and TIP60 protein 1; MYST-1; hMOF |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within human KAT8 protein. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~1:10~50 IP~~N/A IF/IC~~N/A |
| **Format** | Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

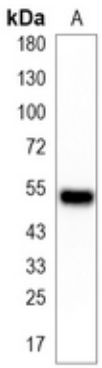
| | |
|---|---|
| **Name** | KAT8 {ECO:0000303\|PubMed:33657400, ECO:0000312\|HGNC:HGNC:17933} |
| **Function** | Histone acetyltransferase that catalyzes histone H4 acetylation at 'Lys-5'- and 'Lys-8' (H4K5ac and H4K8ac) or 'Lys-16' (H4K16ac), depending on the context (PubMed:12397079, PubMed:16227571, 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**

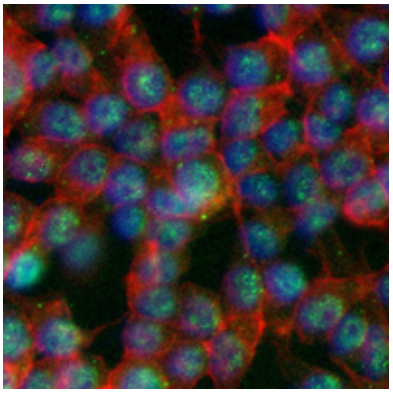
Nucleus. Chromosome Mitochondrion. Note=Translocated into the nucleus via its association with importin-alpha-1 (KPNA2) (PubMed:28991411). As part of the NSL complex, associates with the proximal part of promoters and transcription start sites (PubMed:33657400). As part of the MSL complex, associates 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}

## Images




Western blot analysis of KAT8 expression in HeLa (A) whole cell lysates. (Predicted band size: 52 kD; Observed band size: 52 kD)

Immunofluorescent analysis of KAT8 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an



AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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