

KDM1 / LSD1 Antibody

Rabbit mAb

Catalog # AP92521

Product Information

Application	WB, FC
Primary Accession	O60341
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	AOF2; CPRF; EC1; KDM1; Kdm1a; LSD1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	92903

Additional Information

Dilution	WB 1:500~1:2000 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human KDM1 / LSD1
Description	Histone demethylase that demethylates both 'Lys-4' (H3K4me) and 'Lys-9' (H3K9me) of histone H3, thereby acting as a coactivator or a corepressor, depending on the context.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	KDM1A (HGNC:29079)
Function	Histone demethylase that can demethylate both 'Lys-4' (H3K4me) and 'Lys-9' (H3K9me) of histone H3, thereby acting as a coactivator or a corepressor, depending on the context (PubMed: 15620353 , PubMed: 15811342 , PubMed: 16079794 , PubMed: 16079795 , PubMed: 16140033 , PubMed: 16223729 , PubMed: 27292636). Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed (PubMed: 15620353 , PubMed: 15811342 , PubMed: 16079794 , PubMed: 21300290). Acts as a corepressor by mediating demethylation of H3K4me, a specific tag for epigenetic transcriptional activation. Demethylates both mono- (H3K4me1) and di-methylated (H3K4me2) H3K4me (PubMed: 15620353 , PubMed: 20389281 , PubMed: 21300290 , PubMed: 23721412). May play a role in the repression of neuronal genes. Alone, it is unable to demethylate H3K4me on nucleosomes and requires the presence of RCOR1/CoREST to achieve such activity (PubMed: 16079794 , PubMed: 16140033 , PubMed: 16885027 , PubMed: 21300290 , PubMed: 23721412). Also acts as a coactivator of androgen receptor

(AR)-dependent transcription, by being recruited to AR target genes and mediating demethylation of H3K9me, a specific tag for epigenetic transcriptional repression. The presence of PRKCB in AR-containing complexes, which mediates phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag that prevents demethylation H3K4me, prevents H3K4me demethylase activity of KDM1A (PubMed:[16079795](#)). Demethylates di-methylated 'Lys- 370' of p53/TP53 which prevents interaction of p53/TP53 with TP53BP1 and represses p53/TP53-mediated transcriptional activation. Demethylates and stabilizes the DNA methylase DNMT1 (PubMed:[29691401](#)). Demethylates methylated 'Lys-42' and methylated 'Lys-117' of SOX2 (PubMed:[29358331](#)). Required for gastrulation during embryogenesis. Component of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development (PubMed:[16079794](#), PubMed:[16140033](#)). Facilitates epithelial-to-mesenchymal transition by acting as an effector of SNAI1-mediated transcription repression of epithelial markers E-cadherin/CDH1, CDN7 and KRT8 (PubMed:[20562920](#), PubMed:[27292636](#)). Required for the maintenance of the silenced state of the SNAI1 target genes E-cadherin/CDH1 and CDN7 (PubMed:[20389281](#)). Required for the repression of GIPR expression (PubMed:[34655521](#), PubMed:[34906447](#)).

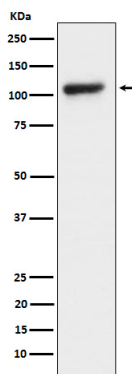
Cellular Location

Nucleus. Chromosome. Note=Associates with chromatin

Tissue Location

Ubiquitously expressed.

Images



Western blot analysis of KDM1 / LSD1 expression in HeLa cell lysate.

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