

KDM1/LSD1 Antibody
Rabbit mAb
Catalog # AP90520

Specification

KDM1/LSD1 Antibody - Product Information

| | |
|----------------------------------------|------------------------|
| Application | WB, IHC, ICC, IP |
| Primary Accession | O60341 |
| Reactivity | Rat |
| Clonality | Monoclonal |
| Other Names | |
| KDM1;AOF2;BHC110;KIAA0601;LSD1; KDM1A; | |
| Isotype | Rabbit IgG |
| Host | Rabbit |
| Calculated MW | 92903 Da |

KDM1/LSD1 Antibody - Additional Information

| | |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed. 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. May play a role in the repression of neuronal genes. |
| 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. |

KDM1/LSD1 Antibody - 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:<a

[15620353](http://www.uniprot.org/citations/15620353), PubMed: [15811342](http://www.uniprot.org/citations/15811342), PubMed: [16079794](http://www.uniprot.org/citations/16079794), PubMed: [16079795](http://www.uniprot.org/citations/16079795), PubMed: [16140033](http://www.uniprot.org/citations/16140033), PubMed: [16223729](http://www.uniprot.org/citations/16223729), PubMed: [27292636](http://www.uniprot.org/citations/27292636)). Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed (PubMed: [15620353](http://www.uniprot.org/citations/15620353) target="_blank">15620353, PubMed: [15811342](http://www.uniprot.org/citations/15811342) target="_blank">15811342, PubMed: [16079794](http://www.uniprot.org/citations/16079794) target="_blank">16079794, PubMed: [21300290](http://www.uniprot.org/citations/21300290) target="_blank">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](http://www.uniprot.org/citations/15620353) target="_blank">15620353, PubMed: [20389281](http://www.uniprot.org/citations/20389281) target="_blank">20389281, PubMed: [21300290](http://www.uniprot.org/citations/21300290) target="_blank">21300290, PubMed: [23721412](http://www.uniprot.org/citations/23721412) target="_blank">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](http://www.uniprot.org/citations/16079794) target="_blank">16079794, PubMed: [16140033](http://www.uniprot.org/citations/16140033) target="_blank">16140033, PubMed: [16885027](http://www.uniprot.org/citations/16885027) target="_blank">16885027, PubMed: [21300290](http://www.uniprot.org/citations/21300290) target="_blank">21300290, PubMed: [23721412](http://www.uniprot.org/citations/23721412) target="_blank">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](http://www.uniprot.org/citations/16079795) target="_blank">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](http://www.uniprot.org/citations/29691401) target="_blank">29691401). Demethylates methylated 'Lys-42' and methylated 'Lys-117' of SOX2 (PubMed: [29358331](http://www.uniprot.org/citations/29358331) target="_blank">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](http://www.uniprot.org/citations/16079794) target="_blank">16079794, PubMed: [16140033](http://www.uniprot.org/citations/16140033) target="_blank">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](http://www.uniprot.org/citations/20562920) target="_blank">20562920, PubMed: [27292636](http://www.uniprot.org/citations/27292636) target="_blank">27292636). Required for the maintenance of the silenced state of the SNAI1 target genes E-cadherin/CDH1 and CDN7 (PubMed: [20389281](http://www.uniprot.org/citations/20389281) target="_blank">20389281).

Cellular Location

Nucleus. Chromosome. Note=Associates with chromatin

Tissue Location

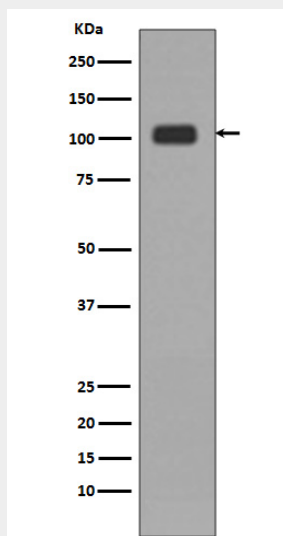
Ubiquitously expressed.

KDM1/LSD1 Antibody - 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](#)

KDM1/LSD1 Antibody - Images



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