

**KDM1/LSD1 Antibody**  
Rabbit mAb  
Catalog # AP90520

## Specification

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### KDM1/LSD1 Antibody - Product Information

Application	WB, IHC, ICC, IP
Primary Accession	<a href="#">O60341</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
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

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

#### Cellular Location

Nucleus. Chromosome. Note=Associates with chromatin

#### Tissue Location

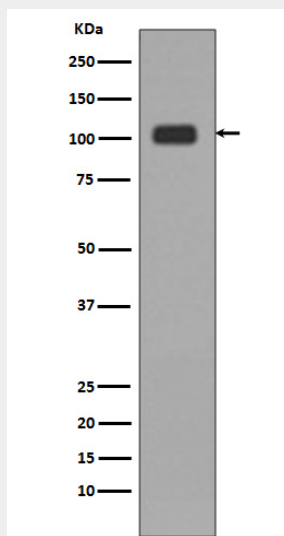
Ubiquitously expressed.

#### 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