

KDM1A / LSD1 Antibody (aa800-850)

Rabbit Polyclonal Antibody Catalog # ALS11911

Specification

KDM1A / LSD1 Antibody (aa800-850) - Product Information

Application IHC, WB Primary Accession 060341

Reactivity Human, Mouse, Rat, Monkey, Dog

Host Rabbit
Clonality Polyclonal
Calculated MW 93kDa KDa

KDM1A / LSD1 Antibody (aa800-850) - Additional Information

Gene ID 23028

Other Names

Lysine-specific histone demethylase 1A, 1.-.-., BRAF35-HDAC complex protein BHC110, Flavin-containing amine oxidase domain-containing protein 2, KDM1A, AOF2, KDM1, KIAA0601, LSD1

Target/Specificity

A portion of amino acids 800-850 of human LSD1

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

KDM1A / LSD1 Antibody (aa800-850) is for research use only and not for use in diagnostic or therapeutic procedures.

KDM1A / LSD1 Antibody (aa800-850) - 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:16140033, PubMed:16079794, PubMed:16079795, PubMed:16223729). Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed (PubMed:15620353, PubMed:<a href="http://www.uniprot.org/citations/15811342"



target=" blank">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:16140033, PubMed:16079794, 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. Effector of SNAI1-mediated transcription repression of E-cadherin/CDH1, CDN7 and KRT8. Required for the maintenance of the silenced state of the SNAI1 target genes E-cadherin/CDH1 and CDN7 (PubMed:20389281).

Cellular Location Nucleus

Tissue LocationUbiquitously expressed.

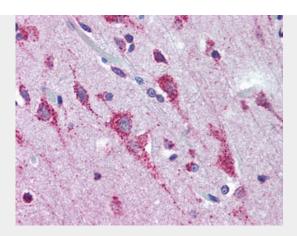
KDM1A / LSD1 Antibody (aa800-850) - Protocols

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

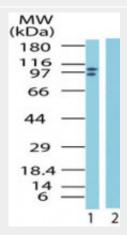
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KDM1A / LSD1 Antibody (aa800-850) - Images





Anti-KDM1A / LSD1 antibody IHC of human brain, cortex.



Western blot ofulSD1 in Jurkat cell lysate in the 1) absence and 2) presence of immunizing...

KDM1A / LSD1 Antibody (aa800-850) - Background

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KDM1A / LSD1 Antibody (aa800-850) - References

Nagase T., et al. DNA Res. 5:31-39(1998).





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Gregory S.G., et al. Nature 441:315-321(2006). Bechtel S., et al. BMC Genomics 8:399-399(2007). Hakimi M.-A., et al. Proc. Natl. Acad. Sci. U.S.A. 99:7420-7425(2002). Humphrey G.W., et al.J. Biol. Chem. 276:6817-6824(2001).