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[Marker Primary Antibody]

Rabbit Anti-KDM1/LSD1/FITC Conjugated antibody

Catalog Number: SL10166R-FITC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-KDM1/LSD1/FITC
Immunogen:	KLH conjugated synthetic peptide derived from human KDM1
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	ICC=1:50-200 IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Chicken,Dog,Pig,Cow,Rabbit)
Background:	background: Gene activation and repression is specifically regulated by histone methylation status at distinct lysine residues. Lysine specific demethylase 1 (KDM1/LSD1) is a long-sought histone demethylase that specifically demethylates mono and di methyl histone H3 at K4 and K9. Thus KDM1 is a specific tag for epigenetic transcriptional activation, thereby acting as a corepressor. **Function:** 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. Alone, it is unable to demethylate H3K4me on nucleosomes and requires the presence of

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	RCOR1/CoREST to achieve such activity. Also acts as a coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and mediating demethylation of H3K9me, a specific tag for epigenetic transcriptional repression. The presence of PRKCB in ANDR-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. 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. 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. **Subunit:** Component of a RCOR/GFI/KDM1A/HDAC complex. Interacts directly with GFI1 and GFI1B (By similarity). Component of a BHC histone deacetylase complex that contains HDAC1, HDAC2, HMG20B, KDM1A, RCOR1 and PHF21A. The BHC complex may also contain ZMYM2, ZNF217, ZMYM3, GSE1 and GTF2I. In the complex, RCOR1/CoREST strongly enhances the demethylase activity and protects it from the proteasome while PHF21A/BHC80 inhibits the demethylase activity. Interacts with the androgen receptor (AR). Interacts with ASXL1. **Subcellular Location:** Nucleus. **Tissue Specificity:** Ubiquitously expressed. **Similarity:** Belongs to the flavin monoamine oxidase family. Contains 1 SWIRM domain. **Database links:** **Entrez Gene:** 23028 Human **Entrez Gene:** 99982 Mouse **Entrez Gene:** 500569 Rat Omim: 609132 Human **SwissProt:** O60341 Human **SwissProt:** Q6ZQ88 Mouse **Unigene:** 591518 Human **Unigene:** 28540 Mouse **Unigene:** 203461 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.