



Rabbit Anti-KDM1/LSD1 antibody

SL10166R

Product Name:	KDM1/LSD1
Chinese Name:	组蛋白赖氨酸特异性脱甲基酶1抗体
Alias:	Amine oxidase (flavin containing) domain 2; Amine oxidase flavin containing domain 2; Amine oxidase flavin containing domain protein 2; AOF 2; AOF2; BHC110; BRAF35 HDAC complex protein BHC110; BRAF35-HDAC complex protein BHC110; FAD binding protein BRAF35 HDAC complex, 110 kDa subunit; Flavin containing amine oxidase domain containing protein 2; Flavin-containing amine oxidase domain-containing protein 2; KDM 1; Kdm1a; KDM1A_HUMAN; KIAA0601; LSD 1; LSD1; Lysine (K) specific demethylase 1; Lysine (K) specific demethylase 1A; Lysine specific histone demethylase 1; Lysine specific histone demethylase 1A; Lysine-specific histone demethylase 1; Lysine-specific histone demethylase 1A.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	94kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human KDM1:301-400/852
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

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 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.

Product Detail:

SWISS:
O60341

Gene ID:
23028

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

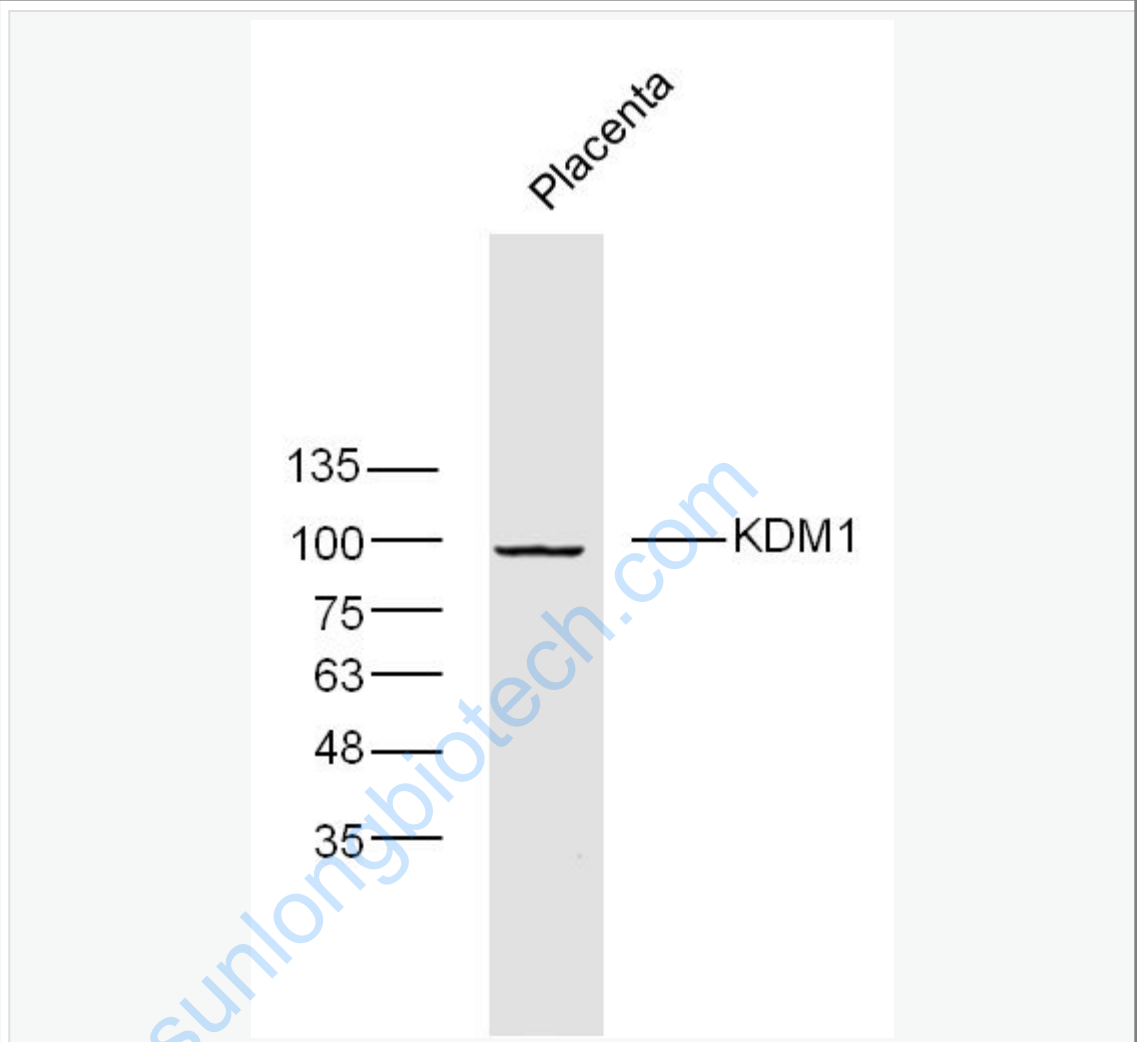
[Unigene: 28540](#)Mouse

[Unigene: 203461](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample: placenta (Mouse) Lysate at 40 ug

Primary: Anti-KDM1(SL10166R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 94 kD

Observed band size: 94 kD