

Product datasheet

Anti-KDM1/LSD1 antibody [EPR6825] (HRP) - Nuclear Marker ab195897

KO VALIDATED Recombinant RabMAb[®]

3 Images

Overview

Product name	Anti-KDM1/LSD1 antibody [EPR6825] (HRP) - Nuclear Marker
Description	Rabbit Monoclonal [EPR6825] to KDM1/LSD1 - Nuclear Marker (HRP)
Host species	Rabbit
Conjugation	HRP
Tested applications	Suitable for: IHC-P, WB
Species reactivity	Reacts with: Rat, Human Predicted to work with: Mouse 
Immunogen	Synthetic peptide within Human KDM1/ LSD1 aa 50-150. The exact sequence is proprietary. (Peptide available as ab166919)
Positive control	WB: HeLa, HAP1, Jurkat and PC12 whole cell lysates. IHC-P: FFPE Human Testis Normal
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C. Store In the Dark.
Storage buffer	pH: 7.4 Preservative: 0.1% Proclin Constituents: PBS, 30% Glycerol, 1% BSA

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6825
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab195897** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/5000. Detects a band of approximately 110 kDa (predicted molecular weight: 92 kDa). Can be blocked with KDM1 / LSD1 peptide (ab166919) .

Target

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.

Tissue specificity

Ubiquitously expressed.

Sequence similarities

Belongs to the flavin monoamine oxidase family.
Contains 1 SWIRM domain.

Domain

The SWIRM domain may act as an anchor site for a histone tail.

Cellular localization

Nucleus.

Images



Western blot - Anti-KDM1 / LSD1 antibody
[EPR6825] - Nuclear Marker (HRP) (ab195897)

All lanes : Anti-KDM1/LSD1 antibody [EPR6825] (HRP) - Nuclear Marker (ab195897) at 1/5000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : KDM1A (KDM1 / LSD1) knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

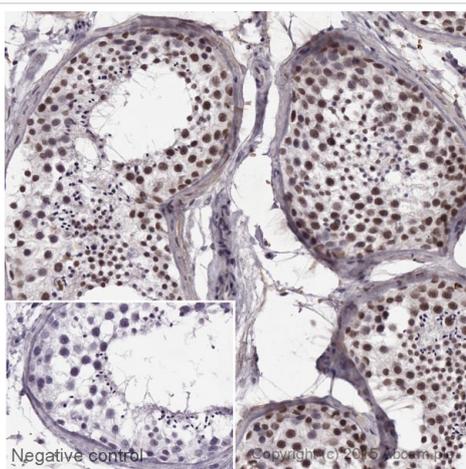
Predicted band size: 92 kDa

Observed band size: 110 kDa

[why is the actual band size different from the predicted?](#)

Exposure time: 20 minutes

ab195897 was shown to specifically react with KDM1 / LSD1 in wild-type HAP1 cells as signal was lost in KDM1A (KDM1 / LSD1) knockout cells. Wild-type and KDM1A (KDM1 / LSD1) knockout samples were subjected to SDS-PAGE. Ab195897 and [ab184095](#) (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDM1 / LSD1 antibody
[EPR6825] - Nuclear Marker (HRP) (ab195897)

IHC image of KDM1/LSD1 staining in a section of formalin-fixed paraffin-embedded normal human testis*. The section was pre-treated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6) for 30mins, and incubated overnight at +4°C with ab195897 at 1/50 dilution. DAB was used as the chromogen ([ab103723](#)), diluted 1/100 and incubated for 10min at room temperature. The section was counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - Anti-KDM1 / LSD1 antibody [EPR6825] - Nuclear Marker (HRP) (ab195897)

All lanes : Anti-KDM1/LSD1 antibody [EPR6825] (HRP) - Nuclear Marker (ab195897) at 1/5000 dilution

Lane 1 : HeLa whole cell lysate (ab150035)

Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lane 3 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 92 kDa

Observed band size: 110 kDa [why is the actual band size different from the predicted?](#)

Exposure time: 4 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab195897 overnight at 4°C. Antibody binding was visualised using ECL development solution [ab133406](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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