# abcam

# Product datasheet

# Anti-KDM1/LSD1 antibody ab62582

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#### Overview

Product name Anti-KDM1/LSD1 antibody

**Description** Rabbit polyclonal to KDM1/LSD1

Host species Rabbit

Tested applications

Suitable for: ICC/IF, IHC-P, WB

Species reactivity

Reacts with: Mouse, Human

Immunogen Synthetic 16 amino acid peptide from near the centre of human KDM1/ LSD1.

**Positive control** WB: MCF-7, Jurkat, and P815 cell lysates. IHC-P: Human small intestine tissue.

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

# **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.02% Sodium azide

Constituent: PBS

Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

# **Applications**

The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab62582 in the following tested applications.

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

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Application	Abreviews	Notes
ICC/IF		Use a concentration of 20 µg/ml.
IHC-P		Use a concentration of 2 µg/ml.
WB	<b>★★★</b> ☆☆(1)	Use a concentration of 0.2 - 2 µg/ml. Detects a band of approximately 105 kDa (predicted molecular weight: 93 kDa).

#### **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 dimethylated '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.

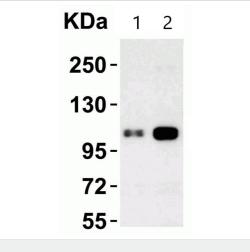
**Sequence similarities** Belongs to the flavin monoamine oxidase family.

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 (ab62582)

All lanes: Anti-KDM1/LSD1 antibody (ab62582) at 1 µg/ml

Lane 1 : MCF7 (human breast adenocarcinoma cell line) cell lysate

Lane 2: Jurkat (human T cell leukemia cell line from peripheral

blood) cell lysate

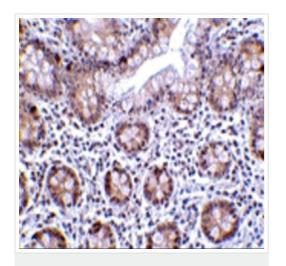
Lysates/proteins at 15 µg per lane.

**Secondary** 

All lanes: Goat anti-rabbit lgG (HRP) at 1/10000 dilution

**Predicted band size:** 93 kDa **Observed band size:** 110 kDa

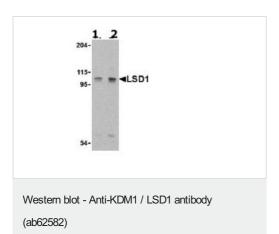
Diluting buffer and concentration: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-KDM1/LSD1 antibody (ab62582)

Immunohistochemical analysis of paraffin-embedded human small intestine tissue using ab62582 at 2  $\mu$ g/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat antirabbit lgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

Immunocytochemistry/ Immunofluorescence - Anti-KDM1/LSD1 antibody (ab62582) Immunofluorescence of LSD1 in Human Small Intestine cells using ab62582 at 20 ug/ml.



**Lane 1**: Anti-KDM1/LSD1 antibody (ab62582) at 1 μg/ml **Lane 2**: Anti-KDM1/LSD1 antibody (ab62582) at 2 μg/ml

All lanes: P815 cell lysate

Lysates/proteins at 15 µg per lane.

**Predicted band size:** 93 kDa **Observed band size:** 105 kDa

Additional bands at: 60 kDa. We are unsure as to the identity of

these extra bands.

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

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