


Product datasheet

Anti-KDM4A / JHDM3A / JMJD2A antibody ab176199

1 Image

Overview

<b>Product name</b>	Anti-KDM4A / JHDM3A / JMJD2A antibody
<b>Description</b>	Rabbit polyclonal to KDM4A / JHDM3A / JMJD2A
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> Flow Cyt or IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Recombinant fragment corresponding to Human KDM4A/ JHDM3A/ JMJD2A aa 1-350. Sequence:  MASESETLNPSARIMTFYPTMEEFRNFSRYAYIESQGA HRAGLAKVVPP KEWKPRASYDDIDDLVIPAPIQQLVTGQSGFLTQYNIQK KAMTVREFRKI ANSDKYCTPRYSEFEELERKYWKNLTFNPPYIGADV GTLYEKHVDEWNI GRLRTILDLVEKESGITIEGVNTPYLYFGMWKTSFAWHT EDMDLYSINYL HFGEPKSWYSVPPEHGKRLERLAKGFFPGSAQSCEA FLRHKMTLISPLML KKYGIPFDKVTQEAGEFMITFPYGYHAGFNHGFNCAES TNFATRRWIEYG KQAVLCSCRKDMVKISMDVFVRKFQPERYKLWKAGK DNTVIDHTLPTPEA

Database link: [O75164](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

**Positive control** DLD1 cell lysate, lung tissue

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.

<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 49% Tris buffered saline, 0.05% BSA
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab176199** 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
WB		1/200. Predicted molecular weight: 121 kDa.

**Application notes**                      Is unsuitable for Flow Cyt or IHC-P.

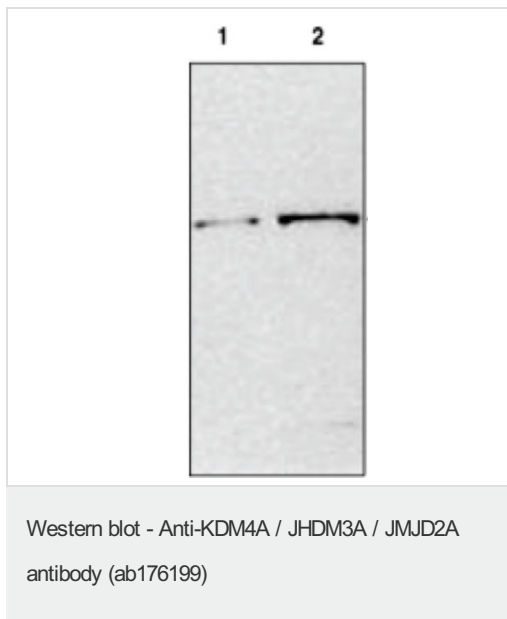
## Target

<b>Function</b>	Histone demethylase that specifically demethylates 'Lys-9' and 'Lys-36' residues of histone H3, thereby playing a central role in histone code. Does not demethylate histone H3 'Lys-4', H3 'Lys-27' nor H4 'Lys-20'. Demethylates trimethylated H3 'Lys-9' and H3 'Lys-36' residue, while it has no activity on mono- and dimethylated residues. Demethylation of Lys residue generates formaldehyde and succinate. Participates in transcriptional repression of ASCL2 and E2F-responsive promoters via the recruitment of histone deacetylases and NCOR1, respectively. Isoform 2: Crucial for muscle differentiation, promotes transcriptional activation of the Myog gene by directing the removal of repressive chromatin marks at its promoter. Lacks the N-terminal demethylase domain.
<b>Tissue specificity</b>	Ubiquitous.
<b>Sequence similarities</b>	Belongs to the JHDM3 histone demethylase family. Contains 1 C2HC pre-PHD-type zinc finger. Contains 1 JmjC domain. Contains 1 JmjN domain. Contains 2 PHD-type zinc fingers. Contains 2 Tudor domains.
<b>Domain</b>	The 2 Tudor domains recognize and bind methylated histone H3 'Lys-4' residue (H3K4me). Double Tudor domain has an interdigitated structure and the unusual fold is required for its ability to bind methylated histone tails. Trimethylated H3 'Lys-4' (H3K4me3) is bound in a cage of 3 aromatic residues, 2 of which are from the Tudor domain 2, while the binding specificity is determined by side-chain interactions involving residues from the Tudor domain 1. The Tudor domains are also able to bind trimethylated histone H3 'Lys-9' (H3K9me3), di- and trimethylated H4 'Lys-20' (H4K20me2 and H4K20me3). Has high affinity for H4K20me2, blocking recruitment of proteins such as TP53BP1.
<b>Post-translational modifications</b>	Ubiquitinated by RNF8 and RNF168 following DNA damage, leading to its degradation. Degradation promotes accessibility of H4K20me2 mark for DNA repair protein TP53BP1, which is then recruited.

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**Images**

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**All lanes :** Anti-KDM4A / JHDM3A / JMJD2A antibody (ab176199)  
at 1/200 dilution

**Lane 1 :** DLD1 cell lysate at 30 µg

**Lane 2 :** DLD1 cell lysate at 60 µg

**Predicted band size:** 121 kDa

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

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