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KDM4A Rabbit mAb

Catalog # AP76785

Product Information

Application	WB, IHC-P, IP
Primary Accession	O75164
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	120662

Additional Information

Gene ID	9682
Other Names	KDM4A
Dilution	WB~~1:1000 IHC-P~~N/A IP~~N/A
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	KDM4A
Synonyms	JHDM3A, JMJD2, JMJD2A, KIAA0677
Function	Histone demethylase that specifically demethylates 'Lys-9' and 'Lys-36' residues of histone H3, thereby playing a central role in histone code (PubMed:16603238, PubMed:26741168, PubMed:21768309). Does not demethylate histone H3 'Lys-4', H3 'Lys-27' nor H4 'Lys-20' (PubMed:16603238, PubMed:26741168, PubMed:21768309). Demethylates trimethylated H3 'Lys-9' and H3 'Lys-36' residue, while it has no activity on mono- and dimethylated residues (PubMed:16603238, PubMed:26741168, PubMed:21768309). Demethylation of Lys residue generates formaldehyde and succinate (PubMed:16603238). Also able to demethylate histone H1-4 methylated at 'Lys-26' (H1.4K26me1, H1.4K26me2 and H1.4K26me3) (PubMed:19144645, PubMed:30156264). Participates in transcriptional repression of ASCL2 and E2F-responsive promoters via the recruitment of histone deacetylases and NCOR1, respectively (PubMed:16024779).

Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00537, ECO:0000269|PubMed:15927959, ECO:0000269|PubMed:16024779}
Tissue Location	Ubiquitous..

Background

This gene is a member of the Jumonji domain 2 (JMJD2) family and encodes a protein containing a JmjN domain, a JmjC domain, a JD2H domain, two TUDOR domains, and two PHD-type zinc fingers. This nuclear protein functions as a trimethylation-specific demethylase, converting specific trimethylated histone residues to the dimethylated form, and as a transcriptional repressor.

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