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Phospho-JMJD2A(Y547) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3726a

Product Information

Application	DB, E
Primary Accession	O75164
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB26167
Calculated MW	120662

Additional Information

Gene ID	9682
Other Names	Lysine-specific demethylase 4A, 11411-, JmjC domain-containing histone demethylation protein 3A, Jumonji domain-containing protein 2A, KDM4A, JHDM3A, JMJD2, JMJD2A, KIAA0677
Target/Specificity	This JMJD2A Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y547 of human JMJD2A.
Dilution	DB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-JMJD2A(Y547) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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..

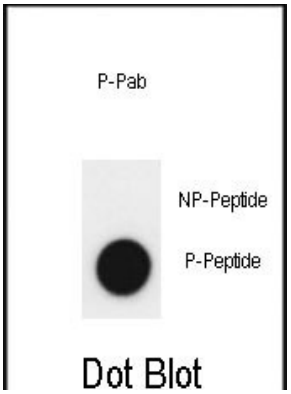
Background

JMJD2A 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.

References

Trojer, P., et al. J. Biol. Chem. 284(13):8395-8405(2009)
Lee, J., et al. Nat. Struct. Mol. Biol. 15(1):109-111(2008)
Katoh, Y., et al. Int. J. Mol. Med. 20(2):269-273(2007)

Images



Dot blot analysis of anti-Phospho-JMJD2A-Y547 Phospho-specific Pab (Cat. #AP3726a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.