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JMJD1C Antibody (C-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22062b

Product Information

Application	WB, E
Primary Accession	Q15652
Reactivity	Human
Predicted	Rabbit
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55072
Calculated MW	284525

Additional Information

Gene ID	221037
Other Names	Probable JmjC domain-containing histone demethylation protein 2C, 1.14.11.-, Jumonji domain-containing protein 1C, Thyroid receptor-interacting protein 8, TR-interacting protein 8, TRIP-8, JMJD1C, JHDM2C, KIAA1380, TRIP8
Target/Specificity	This JMJD1C antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 2019-2051 amino acids from human JMJD1C.
Dilution	WB~~1:1000 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	JMJD1C Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	JMJD1C (HGNC:12313)
Function	Demethylates lysine in proteins, such as STAT3 or MDC1 (By similarity) (PubMed:24240613). Demethylates MDC1, thereby promoting MDC1-RNF8 interaction and facilitating RNF8-dependent MDC1 ubiquitination essential for

	double-strand break (DSB) repair (PubMed:24240613). Demethylation of STAT3 at 'Lys-140' facilitates its interactions with the phosphatase PTPN6 and restrains STAT3 activation (By similarity). It is uncertain whether JMJD1C removes methyl groups from histone proteins as the other JMJD1/KDM3 proteins do (PubMed:23593242, PubMed:24240613, PubMed:32034158). Nevertheless, JMJD1C may act as a context-specific histone demethylase. Implicated in lipogenic gene transcription in the liver, where USF1 recruits JMJD1C to lipogenic promoters in response to insulin or feeding stimuli, thereby potentially promoting H3K9me2 demethylation and enhancing chromatin accessibility (PubMed:32034158). Post-translational modifications may regulate JMJD1C's enzymatic activity, contributing to its context-specific functions (PubMed:32034158). Alternatively, JMJD1C may influence chromatin regulation indirectly, acting as a scaffold or co-regulator that recruits or stabilizes other active demethylase complexes modifying histone marks (PubMed:24240613). Plays an indispensable role in spermatogenesis (By similarity).
Cellular Location	Nucleus

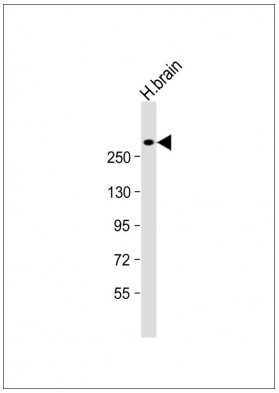
Background

Probable histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Demethylation of Lys residue generates formaldehyde and succinate. May be involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes (By similarity).

References

Wolf S.S.,et al.Arch. Biochem. Biophys. 460:56-66(2007).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Deloukas P.,et al.Nature 429:375-381(2004).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Nagase T.,et al.DNA Res. 7:65-73(2000).

Images



Anti-JMJD1C Antibody (C-Term) at 1:1000 dilution + human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 285 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.