

JMJD2B Antibody

Catalog # ASC10970

Product Information

Application	WB, E
Primary Accession	O94953
Other Accession	AAI36612 , 223460136
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	121897
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	JMJD2B antibody can be used for detection of JMJD2B by Western blot at 1 - 2 μ g/mL.

Additional Information

Gene ID	23030
Other Names	Lysine-specific demethylase 4B, 1.14.11.-, JmjC domain-containing histone demethylation protein 3B, Jumonji domain-containing protein 2B, KDM4B, JHDM3B, JMJD2B, KIAA0876
Target/Specificity	KDM4B;
Reconstitution & Storage	JMJD2B antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	JMJD2B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KDM4B
Synonyms	JHDM3B, JMJD2B, KIAA0876
Function	Histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a role in histone code. Does not demethylate histone H3 'Lys-4', H3 'Lys-27', H3 'Lys-36' nor H4 'Lys- 20'. Only able to demethylate trimethylated H3 'Lys-9', with a weaker activity than KDM4A, KDM4C and KDM4D. Demethylation of Lys residue generates formaldehyde and succinate (PubMed: 16603238 , PubMed: 28262558). Plays a critical role in the development of the central nervous system (CNS).

Background

JMJD2B Antibody: Members of the Jumonji domain 2 (JMJD2) family contain a JmjN domain, a JmjC domain, a JD2H domain, two TUDOR domains, and two PHD-type zinc fingers. Like other members of the JMJD1 and JMJD2 families, JMJD2B is a histone demethylase, but is reported to be a very poor enzyme. Similar to JMJD1A, JMJD2B is a transcriptional target of the hypoxia-inducible factor (HIF), and hypoxic cells express elevated levels of the JMJD2B mRNA and protein. Both JMJD1A and JMJD2B retain their histone demethylase activity in hypoxic conditions, suggesting that this activity of JMJD2B might play a role in the hypoxic gene expression program.

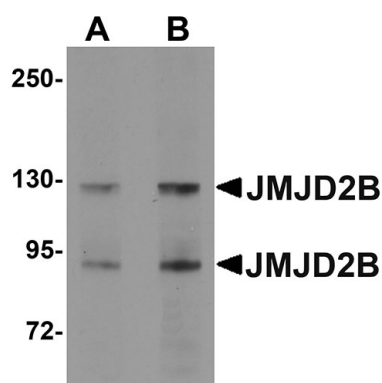
References

Katoh M and Katoh M. Identification and characterization of JMJD2 family genes in silico. *Int. J. Oncol.* 2004; 24:1623-8.

Fodor BD, Kubicek S, Yonezawa M, et al. Jmjd2b antagonizes H3K9 trimethylation at pericentric heterochromatin in mammalian cells. *Genes Dev.* 2006; 20:1557-62.

Beyer S, Kristensen MM, Jensen KS, et al. The histone demethylases JMJD1A and JMJD2B are transcriptional targets of hypoxia-inducible factor HIF. *J. Biol. Chem.* 2008; 283:36542-52.

Images



Western blot analysis of JMJD2B in A20 cell lysate with JMJD2B antibody at (A) 1 and (B) 2 µg/mL.

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