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M JMJD3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1022b

Specification

M JMJD3 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q5NCY0
Other Accession	O15054
Reactivity	**Mouse**
Predicted	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**1606-1641**

M JMJD3 Antibody (C-term) - Additional Information

Gene ID 216850

Other Names
Lysine-specific demethylase 6B, 11411-, JmjC domain-containing protein 3, Jumonji domain-containing protein 3, Kdm6b, Jmjd3, Kiaa0346

Target/Specificity
This Mouse JMJD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1606-1641 amino acids from the C-terminal region of mouse JMJD3.

Dilution
WB~~1:1000
IHC-P~~1:10~50

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
M JMJD3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

M JMJD3 Antibody (C-term) - Protein Information

Name Kdm6b

Synonyms Jmjd3, Kiaa0346

Function Histone demethylase that specifically demethylates 'Lys-27' of histone H3, thereby playing a central role in histone code. Demethylates trimethylated and dimethylated H3 'Lys-27'. Plays a central role in regulation of posterior development, by regulating HOX gene expression. Involved in inflammatory response by participating in macrophage differentiation in case of inflammation by regulating gene expression and macrophage differentiation (PubMed:17825402). Plays a demethylase-independent role in chromatin remodeling to regulate T-box family member-dependent gene expression by acting as a link between T- box factors and the SMARCA4-containing SWI/SNF remodeling complex (PubMed:21095589).

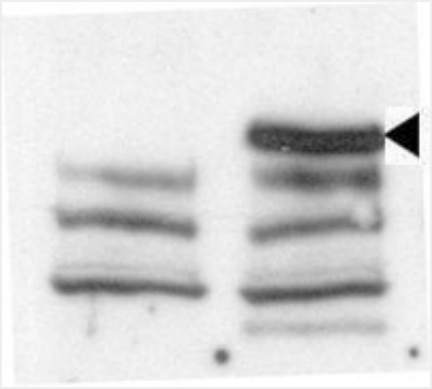
Cellular Location
Nucleus.

M JMJD3 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

M JMJD3 Antibody (C-term) - Images



Western blot analysis of anti-JMJD3 C-term Pab (Cat. #AP1022b) in untransfected 293 cells (left) and transfected 293 cells (right). The detection of a prominent band at 180kDa is observed on transfected 293 cells but not on the untransfected 293 cells. Data kindly provided by Dr.Gioacchino Natoli of European Institute of Oncology.

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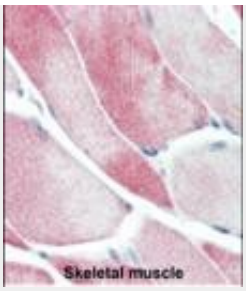

Formalin-fixed and paraffin-embedded human Skeletal Muscle tissue reacted with JMJD3 Antibody(C-term)(Cat.#AP1022b), which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

M JMJD3 Antibody (C-term) - Background

Covalent modification of histones plays critical role in regulating chromatin structure and transcription. While most covalent histone modifications are reversible, only recently has it been established that methyl groups are subject to enzymatic removal from histones. A family of novel JmjC domain-containing histone demethylation (JHDM) enzymes have been identified that perform this specific function. Histone demethylation by JHDM proteins requires cofactors Fe(II) and alpha-ketoglutarate. Family members include JHDM1 (demethylating histone 3 at lysine 36), and JHDM2A as well as JMJD2CH3K9 (both of which demethylate histone 3 at lysine 9). Contributions of histone demethylase activity to tumor development, decreases in cell proliferation, and hormone-dependent transcriptional activation have been observed.

M JMJD3 Antibody (C-term) - Citations

- KDM6B interacts with TFDP1 to activate P53 signaling in regulating mouse palatogenesis
- Jmjd3 mediates blood-spinal cord barrier disruption after spinal cord injury by regulating MMP-3 and MMP-9 expressions.
- Opposing roles of STAT4 and Dnmt3a in Th1 gene regulation.
- Gene networking and inflammatory pathway analysis in a JMJD3 knockdown human monocytic cell line.
- p53 interaction with JMJD3 results in its nuclear distribution during mouse neural stem cell differentiation.
- Human papillomavirus E7 oncoprotein induces KDM6A and KDM6B histone demethylase expression and causes epigenetic reprogramming.
- The role of NF-kappaB and H3K27me3 demethylase, Jmjd3, on the anthrax lethal toxin tolerance of RAW 264.7 cells.