

**JMJD3 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1022A****Specification**

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**JMJD3 Antibody (N-term) - Product Information**

Application	IF, WB, IHC-P,E
Primary Accession	<a href="#">O15054</a>
Other Accession	<a href="#">Q5NCY0</a>
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

**JMJD3 Antibody (N-term) - Additional Information****Gene ID** 23135**Other Names**

Lysine-specific demethylase 6B, 11411-, JmjC domain-containing protein 3, Jumonji domain-containing protein 3, Lysine demethylase 6B, KDM6B, JMJD3, KIAA0346

**Target/Specificity**

This JMJD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human JMJD3.

**Dilution**

IF~~1:10~50  
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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**

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

**JMJD3 Antibody (N-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 (PubMed:[17713478](#), PubMed:[17825402](#), PubMed:[17851529](#), PubMed:[18003914](#)). Demethylates trimethylated and dimethylated H3 'Lys-27' (PubMed:[17713478](#), PubMed:[17825402](#), PubMed:[17851529](#), PubMed:[18003914](#)). Plays a central role in regulation of posterior development, by regulating HOX gene expression (PubMed:[17851529](#)). 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 (By similarity).

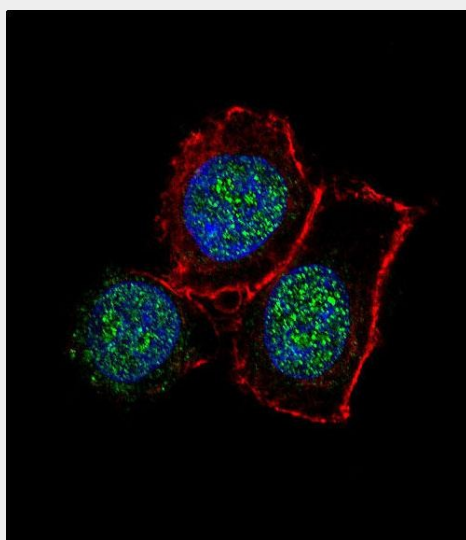
**Cellular Location**

Nucleus.

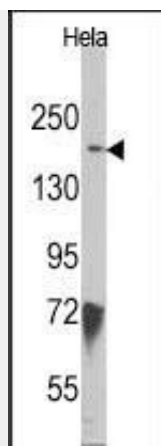
**JMJD3 Antibody (N-term) - Protocols**

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

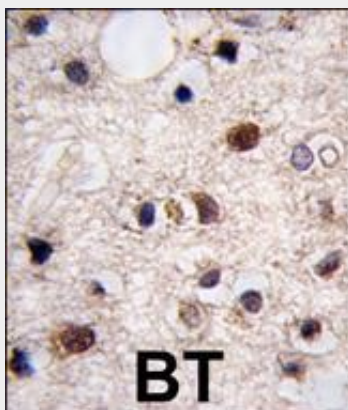
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**JMJD3 Antibody (N-term) - Images**

Confocal immunofluorescent analysis of JMJD3 Antibody (N-term) (Cat#AP1022a) with HeLa cells followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



Western blot analysis of anti-JMJD3 (N-term) Pab (AP1022a) in HeLa cell line lysates. JMJD3 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain tissue reacted with JMJD3 (N-term) (Cat.#AP1022a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

### JMJD3 Antibody (N-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.

### JMJD3 Antibody (N-term) - Citations

- [KDM6B interacts with TFDP1 to activate P53 signaling in regulating mouse palatogenesis.](#)
- [JMJD3 is involved in neutrophil membrane proteinase 3 overexpression during the hyperinflammatory response in early sepsis.](#)
- [Structure of Nascent Chromatin Is Essential for Hematopoietic Lineage Specification.](#)
- [Cyclical DNA Methylation and Histone Changes Are Induced by LPS to Activate COX-2 in Human Intestinal Epithelial Cells.](#)
- [Generation of an anti-EpCAM antibody and epigenetic regulation of EpCAM in colorectal cancer.](#)
- [Histone demethylase KDM6B promotes epithelial-mesenchymal transition.](#)

- [Molecular mechanism of Jmjd3-mediated interleukin-6 gene regulation in endothelial cells underlying spinal cord injury.](#)
- [Sulforaphane suppresses polycomb group protein level via a proteasome-dependent mechanism in skin cancer cells.](#)
- [Evidence for alteration of EZH2, BMI1, and KDM6A and epigenetic reprogramming in human papillomavirus type 16 E6/E7-expressing keratinocytes.](#)
- [Chromatin and transcriptional signatures for Nodal signaling during endoderm formation in hESCs.](#)
- [Jmjd3 activates Mash1 gene in RA-induced neuronal differentiation of P19 cells.](#)
- [Epigenetic analysis of KSHV latent and lytic genomes.](#)
- [Oncogenic RAS alters the global and gene-specific histone modification pattern during epithelial-mesenchymal transition in colorectal carcinoma cells.](#)
- [Epithelial cell adhesion molecule regulation is associated with the maintenance of the undifferentiated phenotype of human embryonic stem cells.](#)
- [Abnormal expression pattern of histone demethylases in CD4\(+\) T cells of MRL/lpr lupus-like mice.](#)
- [Epigenetic regulation of the alternatively activated macrophage phenotype.](#)