

## JMJD1A Antibody

*JMJD1A: Lysine-specific demethylase 3A, KDM3A, JHDM2A, JHMD2A, TSGA*

**CATALOG No.: 5365**

### BACKGROUND:

The jumonji domain containing 1A protein (JMJD1A) was originally discovered as a testes specific gene (1), but has been found to be expressed in numerous tissues (2). JMJD1A is a histone demethylase and specifically demethylates mono- and dimethyl-H3K9 (3). It has also been found to be a novel interaction partner with ER71, a transcription factor expressed in the testes of adult mice and during embryogenesis (4). JMJD1A is also a downstream gene of STAT3, a protein that has been found to be important in the maintenance of mouse embryonic stem (mES) cells, and decreased JMJD1A expression correlated with the differentiation of cultured mES cells following the removal of the cytokine LIF (5). These findings suggest that JMJD1A might be a critical signaling molecule underlying the maintenance of pluripotency in embryonic stem cells. At least two isoforms of JMJD1A are known to exist. This antibody will not cross-react with JMJD1B or JMJD1C.

### SOURCE:

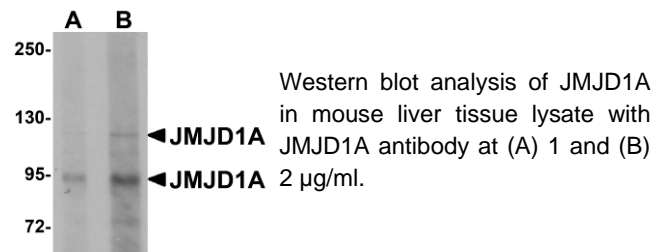
Rabbit polyclonal JMJD1A antibody was raised against a 16 amino acid peptide from near the amino terminus of human JMJD1A (GenBank accession no. NP\_060903).

### STORAGE:

JMJD1A antibody is supplied as immunoaffinity chromatography purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.

### APPLICATION:

JMJD1A antibody can be used for detection of JMJD1A by Western blot at 1 - 2 µg/ml. (Optimal dilution should be determined by user.) Mouse liver tissue lysate can be used as positive control. JMJD1A antibody is human, mouse and rat reactive. **For research use only.**



### RELATED PRODUCTS:

Blocking Peptide, Catalog No. **5365P**.  
 Mouse Liver Tissue Lysate, Catalog No. **1404**.  
 JMJD1B Antibody, Catalog No. **5369**.  
 JMJD1C Antibody, Catalog No. **5371**.

### REFERENCES:

1. Hoog C, Schalling M, Grunder-Brundell E, et al. Analysis of a murine male germ cell-specific transcript that encodes a putative zinc finger protein. *Mol. Reprod. Dev.* 1991; 30:173-81.
2. Sar A, Ponjevic D, Nguyen M, et al. Identification and characterization of demethylase JMJD1A as a gene upregulated in the human cellular response to hypoxia. *Cell Tissue Res.* 2009; 337:223-34.
3. Yamane K, Toumazou C, Tsukada Y, et al. JHDM2A, a JmjC-containing H3K9 demethylase, facilitates transcription activation by androgen receptor. *Cell* 2006; 125:483-95.
4. Knebel J, De Haro L, and Janknecht R. Repression of transcription by TSGA/Jmjd1a, a novel interaction partner of the ETS protein ER71. *J. Cell Biochem.* 2006; 99:319-29.
5. Ko SY, Kang HY, Lee HS, et al. Identification of Jmjd1a as a STAT3 downstream gene in mES cells. *Cell Struct. Funct.* 2006; 31:53-62.

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