

## Product datasheet for **TA336804**

### **KDM3A / JHDM2A (KDM3A) Mouse Monoclonal Antibody [Clone ID: 1E12]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	1E12
<b>Applications:</b>	ELISA, ICC/IF, IHC, Simple Western, WB
<b>Recommended Dilution:</b>	Immunohistochemistry-Paraffin: 1:200-1:1000, Simple Western: 1:500, ELISA: 1:10000, Immunohistochemistry: 1:200-1:1000, Immunocytochemistry/ Immunofluorescence: 1:10-1:500, Western Blot: 1:500-1:2000
<b>Reactivity:</b>	Human
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Purified recombinant fragment of human JMJD1A expressed in E. coli. [UniProt# Q9Y4C1]
<b>Formulation:</b>	Preservative: 0.05% Sodium Azide. Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
<b>Concentration:</b>	lot specific
<b>Purification:</b>	Ascites
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Predicted Protein Size:</b>	147 kDa
<b>Gene Name:</b>	lysine demethylase 3A
<b>Database Link:</b>	<a href="#">NP_001140160</a> <a href="#">Entrez Gene 55818 Human Q9Y4C1</a>



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**Background:**

JMJD1A is a histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. It preferentially demethylates mono- and dimethylated H3 'Lys-9' residue, with a preference for dimethylated residue, while it has weak or no activity on trimethylated H3 'Lys-9'. Demethylation of Lys residue generates formaldehyde and succinate. JMJD1A is involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes, resulting in H3 'Lys-9' demethylation and transcriptional activation. It's also involved in spermatogenesis by regulating expression of target genes such as PRM1 and TMP1 which are required for packaging and condensation of sperm chromatin. Involved in obesity resistance through regulation of metabolic genes such as PPARA and UCP1.

**Synonyms:**

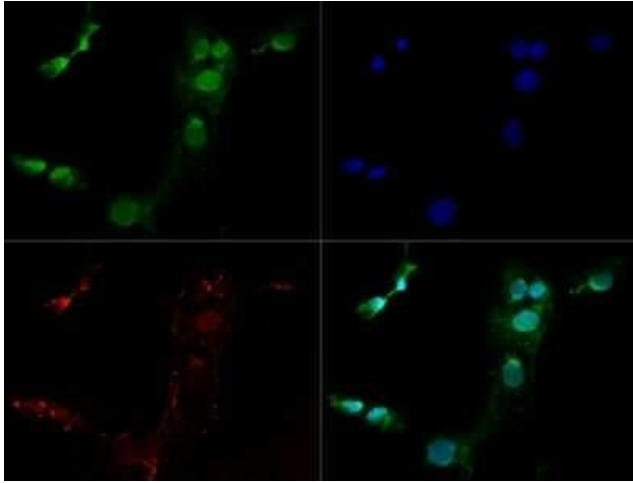
JHDM2A; JHDM2A; JMJD1; JMJD1A; TSGA

**Note:**

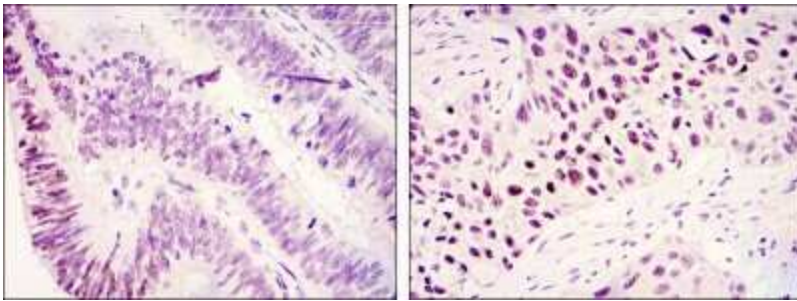
This JMJD1A (1E12) antibody is useful in Western Blot, ELISA and Immunohistochemistry on paraffin-embedded sections.

**Product images:**

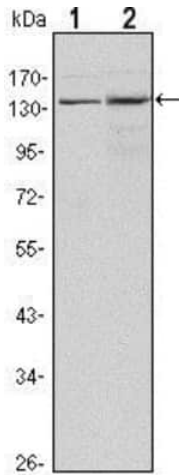
Simple Western: Lysine (K)-specific Demethylase 3A/KDM3A/JMJD1A Antibody (1E12) TA336804 - Simple Western lane view shows a specific band for JMJD1A in 0.5 mg/ml of HepG2 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Immunocytochemistry/Immunofluorescence: Lysine (K)-specific Demethylase 3A/KDM3A/JMJD1A Antibody (1E12) TA336804 - JMJD1A antibody was tested at 1:10 in Ntera2 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red). Image objective 40x.



Immunohistochemistry-Paraffin: Lysine (K)-specific Demethylase 3A/KDM3A/JMJD1A Antibody (1E12) TA336804 - Immunohistochemical analysis of paraffin-embedded colonic cancer tissues (left) and lung cancer tissues (right) using JMJD1A mouse mAb with DAB staining.



Western Blot: Lysine (K)-specific Demethylase 3A/KDM3A/JMJD1A Antibody (1E12) TA336804 - Western blot analysis using JMJD1A mouse mAb against HeLa (1) and HepG2 (2) cell lysates.