

# JMJD1C Antibody

Catalog # ASC10968

### Specification

# JMJD1C Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IHC-P, IF, E <u>Q15652</u> <u>NP\_116165</u>, <u>118600981</u> Human, Mouse, Rat Rabbit Polyclonal IgG JMJD1C antibody can be used for detection of JMJD1C by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

# JMJD1C Antibody - Additional Information

Gene ID 221037 Target/Specificity JMJD1C; This antibody will not cross-react with JMJD1A or JMJD1B.

#### **Reconstitution & Storage**

JMJD1C 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** JMJD1C Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### JMJD1C Antibody - Protein Information

Name JMJD1C

Synonyms JHDM2C, KIAA1380, TRIP8

#### Function

Probable histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Demethylation of Lys residue generates formaldehyde and succinate. May be involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes (By similarity).

**Cellular Location** Nucleus.



# JMJD1C Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# JMJD1C Antibody - Images



Western blot analysis of JMJD1C in human liver tissue lysate with JMJD1C antibody at (A) 1 and (B) 2  $\mu$ g/mL.



Immunohistochemistry of JMJD1C in rat liver tissue with JMJD1C antibody at 2.5 µg/mL.





Immunofluorescence of JMJD1C in rat liver tissue with JMJD1C antibody at 20  $\mu$ g/mL.

### JMJD1C Antibody - Background

JMJD1C Antibody: The jumonji domain containing 1C protein (JMJD1C) was initially discovered in silico, and later suggested to be a candidate gene for autism. Like the related proteins JMJD1A and JMJD1B, JMJD1C is a histone H3K9 demethylase implicated in the nuclear hormone receptor-based transcriptional regulation. JMJD1C mRNA is highly expressed in undifferentiated embryonic stem (ES) cells as well as pancreatic islet, diffuse-type gastric cancer, and other tissues and tumors. The JMJD1C gene promoter contain bHLH-, AP-1-, and POU5F1-binding sites, and as preferential expression of POU5F1 has been reported in ES cells, pancreatic islet, and diffuse-type gastric cancer, it has been suggested that POU5F1-mediated expression of JMJD1C reactivates previously silenced genes in ES cells and diffuse-type gastric cancer. At least three isoforms of JMJD1C are known to exist.

### JMJD1C Antibody - References

Katoh M and Katoh M. Identification of TRIP8 gene in silico. Int. J. Mol. Med.2003; 12:817-21. Castermans D, Vermeesch JR, Fryns JP, et al. Identification and characterization of the TRIP8 and REEP3 genes on chromosome 10q21.3 as novel candidate genes for autism. Eur. J. Hum. Genet.2007; 15:422-31.

Katoh M and Katoh M. Comparative integromics on JMJD1C gene encoding histone demethylase: Conserved POU5F1 binding site elucidating mechanism of JMJD1C expression in undifferentiated ES cells and diffuse-type gastric cancer. Int. J. Oncology2007; 31:219-23.

Katoh Y and Katoh M. Conserved POU-binding site linked to SP1-binding site within FZD5 promoter: transcriptional mechanism of FZD5 in undifferentiated human ES cells, fetal liver/spleen, adult colon, pancreatic islet, and diffuse-type gastric cancer. Int. J. Oncol.2007; 30:751-5.