

**Rabbit Anti-JMJD2C/KDM4C Polyclonal: RC0203**

**Intended Use:** For Research Use Only

**Description:** JMJD2C (jumonji domain containing 2C), also known as KDM4C, GASC1, JHDM3C ,or Lysine-specific demethylase 4C, is a nuclear protein that belongs to the Jumonji domain 2 (JMJD2) family of histone demethylases. Jmjd2c is an ubiquitously expressed histone demethylase that specifically demethylates Lys-9 and Lys-36 residues of histone H3. Functioning as a trimethylation-specific demethylase, JMJD2C demethylates specific lysine residues of Histone H3, thereby converting the trimethylated Histone H3 to its dimethylated form and playing a central role in the histone code. Through its ability to modify histones, JMJD2C increases the rate of cell proliferation and promotes the expression of a variety of proteins. JMJD2C binds iron as a cofactor and contains two Tudor domains through which it interacts with methylated histones. Overexpression of JMJD2C is associated with esophageal squamous cell carcinoma, suggesting a possible role for JMJD2C in carcinogenesis. Two isoforms of JMJD2C exist due to alternative splicing events.

**Specifications**

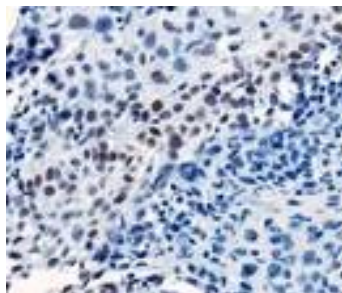
Clone: Polyclonal  
 Source: Rabbit  
 Isotype: IgG  
 Reactivity: Human, mouse  
 Immunogen: KLH-Conjugated linear peptide corresponding to 18 amino acids from the N-terminal half of human Lysine-specific demethylase 4C  
 Localization: Nucleus  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, WB  
 Package:

Description	Catalog No.	Size
JMJD2C/KDM4C Polyclonal Concentrated	RC0203	1 ml

**IHC Procedure\***

Positive Control Tissue: Tonsil, cervical cancer, liver cancer  
 Concentrated Dilution: 10-50  
 Pretreatment: Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: Overnight @ 4°C  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human cervical cancer stained with anti-JMJD2C1 using DAB

**References:**

- Histone demethylase KDM4C activates HIF1 $\alpha$ /VEGFA signaling through the costimulatory factor STAT3 in NSCLC. Xiaowei Wu, et al. Am J Cancer Res. Feb 1;10(2):491-506, 2020.
- Inositol pyrophosphates regulate JMJD2C-dependent histone demethylation. Adam Burton, et al. Proc Natl Acad Sci U S A. Nov 19; 110(47): 18970–18975, 2013.

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