

JMJD5 (G-3): sc-377440

BACKGROUND

JMJD5 (jumonji domain containing 5) is a nuclear protein that is believed to function as a histone lysine demethylase. Belonging to the Jumonji C-domain-containing histone lysine demethylase (JHDM) family, JMJD5 contains one JMJC (Jumonji C) domain. The *C. elegans* homolog of JMJD5 has been identified as a protein that protects the genome against insertions and deletions. This suggests a potential role for mammalian JMJD5 as a tumor suppressor. Further supporting the role of JMJD5 as a tumor suppressor, the knockdown of JMJD5 expression in mouse fibroblasts can lead to an increased mutation rate and an increased tolerance to MNNG (a DNA methylating agent). This implies that JMJD5 may specifically participate in DNA mismatch repair.

CHROMOSOMAL LOCATION

Genetic locus: KDM8 (human) mapping to 16p12.1; Kdm8 (mouse) mapping to 7 F3.

SOURCE

JMJD5 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 215-253 within an internal region of JMJD5 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377440 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

JMJD5 (G-3) is recommended for detection of JMJD5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

JMJD5 (G-3) is also recommended for detection of JMJD5 in additional species, including canine and porcine.

Suitable for use as control antibody for JMJD5 siRNA (h): sc-75359, JMJD5 siRNA (m): sc-75360, JMJD5 shRNA Plasmid (h): sc-75359-SH, JMJD5 shRNA Plasmid (m): sc-75360-SH, JMJD5 shRNA (h) Lentiviral Particles: sc-75359-V and JMJD5 shRNA (m) Lentiviral Particles: sc-75360-V.

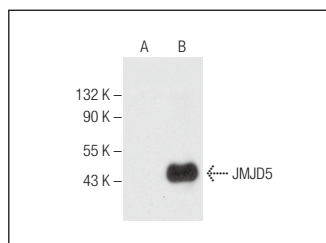
Molecular Weight of JMJD5: 47 kDa.

Positive Controls: JMJD5 (m): 293T Lysate: sc-127027, NIH/3T3 whole cell lysate: sc-2210 or PC-12 cell lysate: sc-2250.

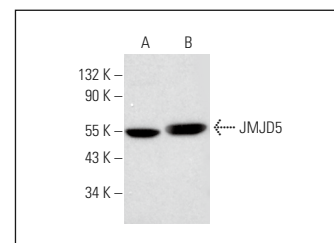
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



JMJD5 (G-3): sc-377440. Western blot analysis of JMJD5 expression in non-transfected: sc-117752 (A) and mouse JMJD5 transfected: sc-127027 (B) 293T whole cell lysates.



JMJD5 (G-3): sc-377440. Western blot analysis of JMJD5 expression in NIH/3T3 (A) and PC-12 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Sullivan, R., et al. 2019. Dynamics of the ghrelin/growth hormone secretagogue receptor system in the human heart before and after cardiac transplantation. *J. Endocr. Soc.* 3: 748-762.
- Liang, S., et al. 2020. BAG2 ameliorates endoplasmic reticulum stress-induced cell apoptosis in *Mycobacterium tuberculosis*-infected macrophages through selective autophagy. *Autophagy* 16: 1453-1467.
- Wang, J., et al. 2020. Intracellular XBP1-IL-24 axis dismantles cytotoxic unfolded protein response in the liver. *Cell Death Dis.* 11: 17.
- Shen, J., et al. 2023. JMJD5 inhibits lung cancer progression by facilitating EGFR proteasomal degradation. *Cell Death Dis.* 14: 657.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.