

JMJD5 (m): 293T Lysate: sc-127027

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.

REFERENCES

1. Toyoda, M., Kojima, M. and Takeuchi, T. 2000. Jumonji is a nuclear protein that participates in the negative regulation of cell growth. *Biochem. Biophys. Res. Commun.* 274: 332-336.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611917. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Jung, J., Mysliwiec, M.R. and Lee, Y. 2005. Roles of Jumonji in mouse embryonic development. *Dev. Dyn.* 232: 21-32.
4. Takeuchi, T., Watanabe, Y., Takano-Shimizu, T. and Kondo, S. 2006. Roles of Jumonji and Jumonji family genes in chromatin regulation and development. *Dev. Dyn.* 235: 2449-2459.
5. Suzuki, T., Minehata, K., Akagi, K., Jenkins, N.A. and Copeland, N.G. 2006. Tumor suppressor gene identification using retroviral insertional mutagenesis in Bln-deficient mice. *EMBO J.* 25: 3422-3431.
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CHROMOSOMAL LOCATION

Genetic locus: Kdm8 (mouse) mapping to 7 F3.

PRODUCT

JMJD5 (m): 293T Lysate represents a lysate of mouse JMJD5 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

JMJD5 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive JMJD5 antibodies. Recommended use: 10-20 µl per lane.

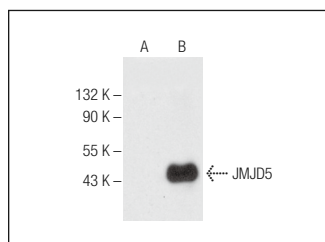
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

JMJD5 (G-3): sc-377440 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse JMJD5 expression in JMJD5 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

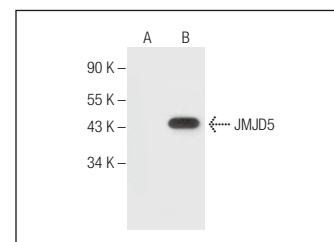
RECOMMENDED SUPPORT REAGENTS

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.

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 (D-5): sc-377078. Western blot analysis of JMJD5 expression in non-transfected: sc-117752 (A) and mouse JMJD5 transfected: sc-127027 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

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.