SANTA CRUZ BIOTECHNOLOGY, INC.

JMJD5 (K-20): sc-69428

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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: JMJD5 (human) mapping to 16p12.1 ; Jmjd5 (mouse) mapping to 7 F3.

SOURCE

JMJD5 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of JMJD5 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69428 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

JMJD5 (K-20) is recommended for detection of JMJD5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 (K-20) is also recommended for detection of JMJD5 in additional species, including equine, canine, bovine 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.

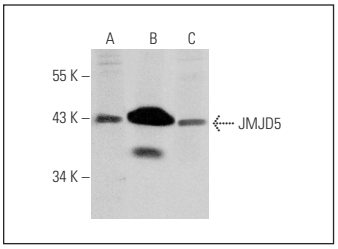
Molecular Weight of JMJD5: 47 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, A549 cell lysate: sc-2413 or HeLa whole cell lysate: sc-2200.

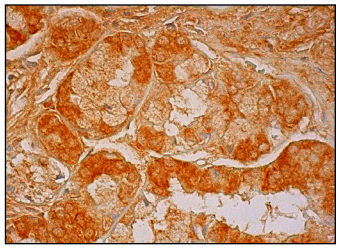
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



JMJD5 (K-20): sc-69428. Western blot analysis of JMJD5 expression in MCF7 (**A**), A549 (**B**) and HeLa (**C**) whole cell lysates.



JMJD5 (K-20): sc-69428. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic and nuclear staining of glandular cells.

RESEARCH USE

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

PROTOCOLS

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