SANTA CRUZ BIOTECHNOLOGY, INC.

JMJD3 (T-15): sc-164716

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The Power to Question

BACKGROUND

JMJD3 (Jumonji domain containing 3), also known as KDM6B (lysine demethylase 6B), is a 1,679 amino acid nuclear protein that contains one JMJC domain and belongs to the highly conserved JMJC domain-containing protein family. Functioning as a histone demethylase, JMJD3 uses iron and ascorbate as cofactors to demethylate dimethylated and trimethylated Lys 27 residues of Histone H3, thereby playing an important role in the modification of the histone code. Additionally, JMJD3 regulates posterior development and is involved in the inflammatory response, specifically by mediating macrophage differentiation. JMJD3 is also thought to control the expression of neurogenesis-related proteins and, via this regulatory mechanism, may be necessary for neural commitment during early development. Two isoforms of JMJD3 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KDM6B (human) mapping to 17p13.1; Kdm6b (mouse) mapping to 11 B3.

SOURCE

JMJD3 (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of JMJD3 of human origin.

STORAGE

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

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-164716 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

JMJD3 (T-15) is recommended for detection of JMJD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other JMJD family members.

JMJD3 (T-15) is also recommended for detection of JMJD3 in additional species, including equine and canine.

Suitable for use as control antibody for JMJD3 siRNA (h): sc-93819, JMJD3 siRNA (m): sc-146326, JMJD3 shRNA Plasmid (h): sc-93819-SH, JMJD3 shRNA Plasmid (m): sc-146326-SH, JMJD3 shRNA (h) Lentiviral Particles: sc-93819-V and JMJD3 shRNA (m) Lentiviral Particles: sc-146326-V.

Molecular Weight of JMJD3: 180 kDa.

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) 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.

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.