

JMJD2D (I-12): sc-109296

BACKGROUND

JMJD2D (Jumonji domain-containing protein 2D), also known as JHDM3D or KDM4D, is a 520 amino acid protein that belongs to the JHDM3 histone demethylase family. Localized to the nucleus, JMJD2D functions as a histone demethylase that removes specific methyl residues from Histone H3, thereby playing a crucial role in the histone code. JMJD2D binds iron as a cofactor and contains one JMJC domain and one JMJN domain, both of which are thought to exhibit enzymatic activity during chromatin remodeling events. In addition, JMJD2D forms a complex with the ligand-bound form of the androgen receptor (AR) and, through this interaction, activates AR expression. Over-expression of AR is associated with prostate cancer, suggesting that, via its ability to upregulate AR, JMJD2D may be involved in carcinogenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KDM4D (human) mapping to 11q21; Kdm4d (mouse) mapping to 9 A1.

SOURCE

JMJD2D (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of JMJD2D 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-109296 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

JMJD2D (I-12) is recommended for detection of JMJD2D 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).

JMJD2D (I-12) is also recommended for detection of JMJD2D in additional species, including equine.

Suitable for use as control antibody for JMJD2D siRNA (h): sc-96274, JMJD2D siRNA (m): sc-146325, JMJD2D shRNA Plasmid (h): sc-96274-SH, JMJD2D shRNA Plasmid (m): sc-146325-SH, JMJD2D shRNA (h) Lentiviral Particles: sc-96274-V and JMJD2D shRNA (m) Lentiviral Particles: sc-146325-V.

Molecular Weight of JMJD2D: 58 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.