

JMJD2D (G-14): sc-109295

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 JMJD2 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/KDM4E (human) mapping to 11q21; Kdm4d (mouse) mapping to 9 A1.

SOURCE

JMJD2D (G-14) 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-109295 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 (G-14) is recommended for detection of JMJD2D and KDM4DL of human origin and JMJD2D of mouse and rat 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 (G-14) is also recommended for detection of JMJD2D and KDM4DL in additional species, including equine, canine, bovine and porcine.

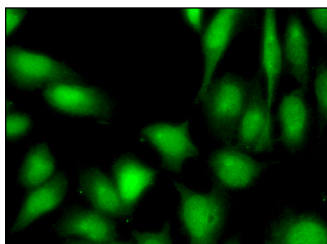
Suitable for use as control antibody for JMJD2D siRNA (m): sc-146325, JMJD2D shRNA Plasmid (m): sc-146325-SH and JMJD2D shRNA (m) Lentiviral Particles: sc-146325-V.

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.

DATA



JMJD2D (G-14): sc-109295. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear and cytoplasmic localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

RESEARCH USE

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

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Try **JMJD2D (F-7): sc-393750**, our highly recommended monoclonal alternative to JMJD2D (G-14).