

PHF8 (P-15): sc-131751

BACKGROUND

PHF8 (PHD finger protein 8), also known as JHDM1F (Jumonji C domain-containing histone demethylase 1F), MRXSSD or ZNF422, is a 1,024 amino acid protein belonging to the PHD finger protein family. Members of the PHD finger protein family function as transcriptional regulators that affect gene expression by modulating chromatin structure. PHF8 is an evolutionarily conserved protein containing one PHD-type zinc finger and one JMJC domain, suggesting a possible role for PHF8 in transcription regulation and chromatin remodeling. Mutations in the gene encoding PHF8 can result in MRXSSD (mental retardation X-linked Siderius type), a condition characterized as a syndromic form of mental retardation in which patients may exhibit recognizable physical signs such as facial dysmorphism, skeletal abnormalities or biochemical abnormalities.

REFERENCES

1. Siderius, L.E., et al. 1999. X-linked mental retardation associated with cleft lip/palate maps to Xp11.3-q21.3. *Am. J. Med. Genet.* 85: 216-220.
2. Kikuno, R., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 6: 197-205.
3. Nakajima, D., et al. 2002. Construction of expression-ready cDNA clones for KIAA genes: manual curation of 330 KIAA cDNA clones. *DNA Res.* 9: 99-106.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300560. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Laumonier, F., et al. 2005. Mutations in PHF8 are associated with X linked mental retardation and cleft lip/cleft palate. *J. Med. Genet.* 42: 780-786.
6. Abidi, F.E., et al. 2007. A novel mutation in the PHF8 gene is associated with X-linked mental retardation with cleft lip/cleft palate. *Clin. Genet.* 72: 19-22.

CHROMOSOMAL LOCATION

Genetic locus: PHF8 (human) mapping to Xp11.22; Phf8 (mouse) mapping to X F3.

SOURCE

PHF8 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PHF8 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-131751 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

PHF8 (P-15) is recommended for detection of All PHF8 isoforms 1-3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other PHF family members.

PHF8 (P-15) is also recommended for detection of All PHF8 isoforms 1-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PHF8 siRNA (h): sc-91011, PHF8 siRNA (m): sc-152221, PHF8 shRNA Plasmid (h): sc-91011-SH, PHF8 shRNA Plasmid (m): sc-152221-SH, PHF8 shRNA (h) Lentiviral Particles: sc-91011-V and PHF8 shRNA (m) Lentiviral Particles: sc-152221-V.

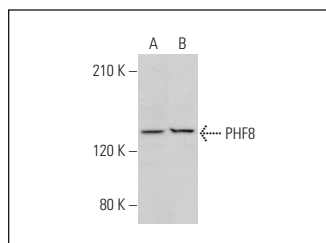
Molecular Weight of PHF8: 118 kDa.

Positive Control: HEK293 whole cell lysate: sc-45136 or NCI-H460 whole cell lysate: sc-364235.

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.

DATA



PHF8 (P-15): sc-131751. Western blot analysis of PHF8 expression in HEK293 (A) and NCI-H460 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Fortschegger, K., et al. 2010. PHF8 targets histone methylation and RNA polymerase II to activate transcription. *Mol. Cell. Biol.* 30: 3286-3298.

STORAGE

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