

PHF2 (C-17): sc-324199

BACKGROUND

PHF2 (PHD finger protein 2), also known as JHDM1E (Jumonji C domain-containing histone demethylase 1E) or GRC5, is a 1,101 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. Expressed in a wide variety of tissues, PHF2 localizes to the nucleus and contains one PHD-type zinc finger and one JMJC domain, suggesting a possible role for PHF2 in transcription regulation and chromatin remodeling. The gene encoding PHF2 lies in the candidate region for hereditary sensory neuropathy type I (HSN1), a disorder characterized by sensory dysfunction. PHF2 exists as two isoforms produced by alternative splicing, designated isoform 1 and 2 respectively.

REFERENCES

- Ishikawa, K., Nagase, T., Suyama, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1998. Prediction of the coding sequences of unidentified human genes. X. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 169-176.
- Hasenpusch-Theil, K., Chadwick, B.P., Theil, T., Heath, S.K., Wilkinson, D.G. and Frischauf, A.M. 1999. PHF2, a novel PHD finger gene located on human chromosome 9q22. Mamm. Genome 10: 294-298.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604351. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Laumonnier, F., Holbert, S., Ronce, N., Faravelli, F., Lenzner, S., Schwartz, C.E., Lespinasse, J., Van Esch, H., Lacombe, D., Goizet, C., Phan-Dinh Tuy, F., van Bokhoven, H., Fryns, J.P., Chelly, J., Ropers, H.H., Moraine, C., et al. 2005. Mutations in PHF8 are associated with X linked mental retardation and cleft lip/cleft palate. J. Med. Genet. 42: 780-786.

CHROMOSOMAL LOCATION

Genetic locus: PHF2 (human) mapping to 9q22.31.

SOURCE

PHF2 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PHF2 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-324199 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.

RESEARCH USE

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

APPLICATIONS

PHF2 (C-17) is recommended for detection of PHF2 of human 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); non cross-reactive with other PHF family members.

PHF2 (C-17) is also recommended for detection of PHF2 in additional species, including bovine.

Suitable for use as control antibody for PHF2 siRNA (h): sc-92588, PHF2 shRNA Plasmid (h): sc-92588-SH and PHF2 shRNA (h) Lentiviral Particles: sc-92588-V.

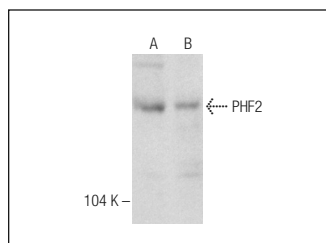
Molecular Weight of PHF2: 121 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or MCF7 nuclear extract: sc-2149.

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



PHF2 (C-17): sc-324199. Western blot analysis of PHF2 expression in Jurkat (A) and MCF7 (B) nuclear extracts.

PROTOCOLS

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