SANTA CRUZ BIOTECHNOLOGY, INC.

PHF1 (H-1): sc-515013

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PHF1 (PHD protein finger 1), also known as polycomb-like protein 1 or hPCI1, is a 567 amino acid member of the PHD finger protein family. Members of the PHD finger protein family function as transcriptional regulators that affect gene expression by modulating chromatin structure. With a subcellular localization to the nucleus, PHF1 is widely expressed in tissues, with high expression in pancreas, heart and skeletal muscle and low expression in liver, lung, kidney, brain and placenta. PHF1 contains two PHD-type zinc finger domains, which may contribute to the transcriptional activity of PHF1. PHF1 is thought to interact with ENX-1, a component of PRC2 (polycomb repressive complex 2), increasing the gene silencing activity of PRC2. PHF1 exists as two isoforms produced by alternative splicing.

REFERENCES

1. Coulson, M., et al. 1998. The identification and localization of a human gene with sequence similarity to Polycomblike of *Drosophila melanogaster*. Genomics 48: 381-383.
2. O'Connell, S., et al. 2001. Polycomblike PHD fingers mediate conserved interaction with enhancer of zeste protein. J. Biol. Chem. 276: 43065-43073.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602881. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: PHF1 (human) mapping to 6p21.32; Phf1 (mouse) mapping to 17 A3.3.

SOURCE

PHF1 (H-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 21-36 near the N-terminus of PHF1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PHF1 (H-1) is available conjugated to agarose (sc-515013 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515013 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515013 PE), fluorescein (sc-515013 FITC), Alexa Fluor® 488 (sc-515013 AF488), Alexa Fluor® 546 (sc-515013 AF546), Alexa Fluor® 594 (sc-515013 AF594) or Alexa Fluor® 647 (sc-515013 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515013 AF680) or Alexa Fluor® 790 (sc-515013 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515013 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

PHF1 (H-1) is recommended for detection of PHF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for PHF1 siRNA (h): sc-95264, PHF1 siRNA (m): sc-39797, PHF1 shRNA Plasmid (h): sc-95264-SH, PHF1 shRNA Plasmid (m): sc-39797-SH, PHF1 shRNA (h) Lentiviral Particles: sc-95264-V and PHF1 shRNA (m) Lentiviral Particles: sc-39797-V.

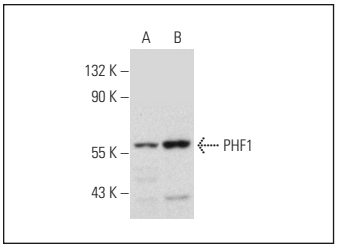
Molecular Weight of PHF1: 62 kDa.

Positive Controls: A-431 nuclear extract: sc-2122 or HeLa nuclear extract: sc-2120.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PHF1 (H-1): sc-515013. Western blot analysis of PHF1 expression in A-431 (**A**) and HeLa (**B**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Di Meco, A. and Praticò, D. 2019. Early-life exposure to high-fat diet influences brain health in aging mice. Aging Cell 27: e13040.
2. Gáspár, A., et al. 2021. Intracerebroventricularly injected streptozotocin exerts subtle effects on the cognitive performance of long-evans rats. Front. Pharmacol. 12: 662173.

STORAGE

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