SANTA CRUZ BIOTECHNOLOGY, INC.

PHF13 (G-9): sc-376086



BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. PHF13 (PHD finger protein 13), also known as PHF5 or SPOC1, is a 300 amino acid protein that contains one PHD-type zinc finger, suggesting involvement in transcriptional regulation events. The gene encoding PHF13 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

- Blackwood, D.H., Fordyce, A., Walker, M.T., St Clair, D.M., Porteous, D.J. and Muir, W.J. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brainexpressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433.
- Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
- Mohrmann, G., Hengstler, J.G., Hofmann, T.G., Endele, S.U., Lee, B., Stelzer, C., Zabel, B., Brieger, J., Hasenclever, D., Tanner, B., Sagemueller, J., Sehouli, J., Will, H. and Winterpacht, A. 2005. SPOC1, a novel PHD-finger protein: association with residual disease and survival in ovarian cancer. Int. J. Cancer 116: 547-554.
- 4. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. Nature 440: 32-34.

CHROMOSOMAL LOCATION

Genetic locus: PHF13 (human) mapping to 1p36.31.

SOURCE

PHF13 (G-9) is a mouse monoclonal antibody raised against amino acids 126-220 mapping within an internal region of PHF13 of human origin.

PRODUCT

Each vial contains 200 μg lgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PHF13 (G-9) is available conjugated to agarose (sc-376086 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376086 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376086 PE), fluorescein (sc-376086 FITC), Alexa Fluor[®] 488 (sc-376086 AF488), Alexa Fluor[®] 546 (sc-376086 AF546), Alexa Fluor[®] 594 (sc-376086 AF594) or Alexa Fluor[®] 647 (sc-376086 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376086 AF680) or Alexa Fluor[®] 790 (sc-376086 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PHF13 (G-9) is recommended for detection of PHF13 of 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), immunohistochemistry (including paraffin-embedded sections) (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 PHF13 siRNA (h): sc-78690, PHF13 shRNA Plasmid (h): sc-78690-SH and PHF13 shRNA (h) Lentiviral Particles: sc-78690-V.

Molecular Weight of PHF13: 34 kDa.

Positive Controls: human PHF13 transfected HEK293T whole cell lysate.

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA





PHF13 (G-9): sc-376086. Western blot analysis of PHF13 expression in non-transfected (**A**) and human PHF13 transfected (**B**) HEK293T whole cell lysates. PHF13 (G-9): sc-376086. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

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.

PROTOCOLS

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