SANTA CRUZ BIOTECHNOLOGY, INC.

PHF12 (G-3): sc-514864

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. PHF12 (PHD finger protein 12), also known as PF1 or KIAA1523, is a 1,004 amino acid protein that localizes to the nucleus and contains one FHA domain and 2 PHD-type zinc fingers. Existing as multiple alternatively spliced isoforms, PHF12 functions as a transcriptional repressor that is involved in recruiting mSin3A to DNA and may modify histone deactelytase (HDAC) complex activity. Multiple isoforms of PHF12 exist due to alternative splicing events. The gene encoding PHF12 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

1. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 143-150.
2. Yochum, G.S. and Ayer, D.E. 2001. Pf1, a novel PHD zinc finger protein that links the TLE corepressor to the mSin3A-histone deacetylase complex. Mol. Cell. Biol. 21: 4110-4118.
3. Yochum, G.S. and Ayer, D.E. 2002. Role for the mortality factors MORF4, MRGX, and MRG15 in transcriptional repression via associations with Pf1, mSin3A, and Transducin-Like Enhancer of Split. Mol. Cell. Biol. 22: 7868-7876.
4. Beausoleil, S.A., et al. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc. Natl. Acad. Sci. USA 101: 12130-12135.
5. Nousiainen, M., et al. 2006. Phosphoproteome analysis of the human mitotic spindle. Proc. Natl. Acad. Sci. USA 103: 5391-5396.

CHROMOSOMAL LOCATION

Genetic locus: PHF12 (human) mapping to 17q11.2; Phf12 (mouse) mapping to 11 B5.

SOURCE

PHF12 (G-3) is a mouse monoclonal antibody raised against amino acids 421-660 mapping within an internal region of PHF12 of human origin.

PRODUCT

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

PHF12 (G-3) is available conjugated to agarose (sc-514864 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514864 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514864 PE), fluorescein (sc-514864 FITC), Alexa Fluor® 488 (sc-514864 AF488), Alexa Fluor® 546 (sc-514864 AF546), Alexa Fluor® 594 (sc-514864 AF594) or Alexa Fluor® 647 (sc-514864 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514864 AF680) or Alexa Fluor® 790 (sc-514864 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PHF12 (G-3) is recommended for detection of PHF12 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 PHF12 siRNA (h): sc-93900, PHF12 siRNA (m): sc-152208, PHF12 shRNA Plasmid (h): sc-93900-SH, PHF12 shRNA Plasmid (m): sc-152208-SH, PHF12 shRNA (h) Lentiviral Particles: sc-93900-V and PHF12 shRNA (m) Lentiviral Particles: sc-152208-V.

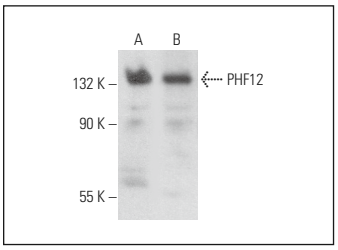
Molecular Weight of PHF12: 110 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, C6 whole cell lysate: sc-364373 or Jurkat nuclear extract: sc-2132.

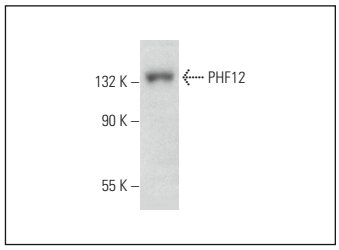
RECOMMENDED SUPPORT REAGENTS

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



PHF12 (G-3): sc-514864. Western blot analysis of PHF12 expression in HeLa (**A**) and C6 (**B**) whole cell lysates.



PHF12 (G-3): sc-514864. Western blot analysis of PHF12 expression in Jurkat nuclear extract.

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.