

PRDM4 (A-10): sc-518205

BACKGROUND

The positive regulatory (PR) domain defines a family of zinc-finger transcription factors involved in cell differentiation and tumorigenesis. One member of the PR domain family is PRDM4, a protein that is differentially controlled by neurotrophin and serum conditions. PRDM4 is characterized by an internal PR domain and six carboxy-terminal zinc finger motifs. PRDM4 interacts with the p75 neurotrophin receptor and is redistributed from the cytoplasm to the nucleus following NGF treatment of transfected cells, suggesting that PRDM4 may provide a downstream transducer for the effects of NGF through the p75 neurotrophin receptor. Under normal growth conditions, PRDM4 is predominantly found in the cytoplasm; however, upon serum-starvation, PRDM4 also translocates into the nucleus. The gene encoding human PRDM4 maps to chromosome 12q23-q24.1, a region involved in harboring tumor suppressor genes, suggesting a role for PRDM4 in events associated with growth arrest.

REFERENCES

1. Buyse, I.M., et al. 1995. The retinoblastoma protein binds to RIZ, a zinc-finger protein that shares an epitope with the adenovirus E1A protein. *Proc. Natl. Acad. Sci. USA* 92: 4467-4471.
2. Yang, X.H. and Huang, S. 1999. PFM1 (PRDM4), a new member of the PR-domain family, maps to a tumor suppressor locus on human chromosome 12q23-q24.1. *Genomics* 61: 319-325.
3. Chittka, A. and Chao, M.V. 1999. Identification of a zinc finger protein whose subcellular distribution is regulated by serum and nerve growth factor. *Proc. Natl. Acad. Sci. USA* 96: 10705-10710.
4. Ren, B., et al. 1999. PRDI-BF1/Blimp-1 repression is mediated by corepressors of the Groucho family of proteins. *Genes Dev.* 13: 125-137.
5. LocusLink Report (LocusID: 11108). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: PRDM4 (human) mapping to 12q23.3.

SOURCE

PRDM4 (A-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 571-594 of PRDM4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PRDM4 (A-10) is available conjugated to agarose (sc-518205 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518205 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518205 PE), fluorescein (sc-518205 FITC), Alexa Fluor® 488 (sc-518205 AF488), Alexa Fluor® 546 (sc-518205 AF546), Alexa Fluor® 594 (sc-518205 AF594) or Alexa Fluor® 647 (sc-518205 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518205 AF680) or Alexa Fluor® 790 (sc-518205 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PRDM4 (A-10) is recommended for detection of PRDM4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PRDM4 siRNA (h): sc-106446, PRDM4 shRNA Plasmid (h): sc-106446-SH and PRDM4 shRNA (h) Lentiviral Particles: sc-106446-V.

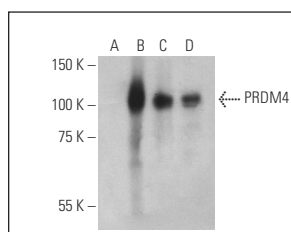
Molecular Weight of PRDM4: 88 kDa.

Positive Controls: PRDM4 (h): 293T Lysate: sc-115322, SK-N-SH cell lysate: sc-2410 or SK-OV-3 whole cell lysate: sc-364229.

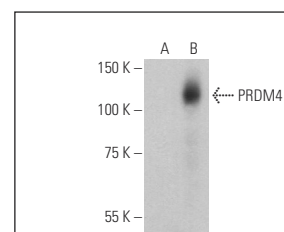
RECOMMENDED SECONDARY REAGENTS

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



PRDM4 (A-10): sc-518205. Western blot analysis of PRDM4 expression in non-transfected 293T: sc-117752 (A), human PRDM4 transfected 293T: sc-115322 (B), SK-N-SH (C) and SK-OV-3 (D) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



PRDM4 (A-10): sc-518205. Western blot analysis of PRDM4 expression in non-transfected: sc-117752 (A) and human PRDM4 transfected: sc-115322 (B) 293T whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.