

PRDM4 (A-18): sc-15254

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 12q23.3, a region involved in harboring tumor suppressor genes, suggesting a role for PRDM4 in events associated with growth arrest.

REFERENCES

1. Buyse, I.M., Shao, G. and Huang, S. 1995. The retinoblastoma protein binds to RLZ, 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., Chee, K.J., Kim, T.H. and Maniatis, T. 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: 8805). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: PRDM4 (human) mapping to 12q23.3; Prdm4 (mouse) mapping to 10 C1.

SOURCE

PRDM4 (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PRDM4 of rat 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-15254 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.

APPLICATIONS

PRDM4 (A-18) is recommended for detection of PRDM4 of mouse, rat and human 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).

PRDM4 (A-18) is also recommended for detection of PRDM4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PRDM4 siRNA (h): sc-106446, PRDM4 siRNA (m): sc-153238, PRDM4 shRNA Plasmid (h): sc-106446-SH, PRDM4 shRNA Plasmid (m): sc-153238-SH, PRDM4 shRNA (h) Lentiviral Particles: sc-106446-V and PRDM4 shRNA (m) Lentiviral Particles: sc-153238-V.

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.

RESEARCH USE

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

PROTOCOLS

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