

# PRDM10 (G-16): sc-240786

## BACKGROUND

The PR-domain containing proteins (PRDMs) have a common involvement in the modulation of gene activities. A PR-domain family member usually produces two products, which differ by the presence or absence of the PR domain. The PR-plus product is underexpressed or disrupted, whereas the PR-minus product is present or overexpressed in cancer cells. This imbalance in the amount of the two products, which is a result of either genetic or epigenetic events, appears to be a determining cause of malignancy. PRDM10 (PR domain containing 10), also known as PFM7 or TRIS, is a 1,147 amino acid protein that contains 10 C<sub>2</sub>H<sub>2</sub>-type zinc fingers and one SET domain. Existing as six alternatively spliced isoforms, PRDM10 localizes nucleus and may be involved in transcriptional regulation. PRDM10 may also play a role in the development of the central nerve system, as well as in the pathogenesis of neuronal storage disease.

## REFERENCES

1. Liu, L., et al. 1997. The retinoblastoma interacting zinc-finger gene RIZ produces a PR domain-lacking product through an internal promoter. *J. Biol. Chem.* 272: 2984-2991.
2. Nagase, T., et al. O. 1999. Prediction of the coding sequences of unidentified human genes. XV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 6: 337-345.
3. Huang, S. 1999. The retinoblastoma protein-interacting zinc-finger gene RIZ in 1p36-linked cancers. *Front. Biosci.* 4: D528-32.
4. Jiang, G.L. and Huang, S. 2000. The yin-yang of PR-domain family genes in tumorigenesis. *Histol. Histopathol.* 15: 109-117.
5. Siegel, D.A., et al. 2002. Ectopic dendrite initiation: CNS pathogenesis as a model of CNS development. *Int. J. Dev. Neurosci.* 20: 373-389.
6. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
7. Wilm, T.P., et al. 2004. Essential roles of a zebrafish prdm1/blim organogenesis. *Development* 132: 393-404.

## CHROMOSOMAL LOCATION

Genetic locus: PRDM10 (human) mapping to 11q24.3; Prdm10 (mouse) mapping to 9 A4.

## SOURCE

PRDM10 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PRDM10 of human 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-240786 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PRDM10 (G-16) is recommended for detection of PRDM10 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); non cross-reactive with other PRDM family members.

PRDM10 (G-16) is also recommended for detection of PRDM10 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PRDM10 siRNA (h): sc-72002, PRDM10 siRNA (m): sc-152444, PRDM10 shRNA Plasmid (h): sc-72002-SH, PRDM10 shRNA Plasmid (m): sc-152444-SH, PRDM10 shRNA (h) Lentiviral Particles: sc-72002-V and PRDM10 shRNA (m) Lentiviral Particles: sc-152444-V.

Molecular Weight of PRDM10 isoforms 3/2/1: 130/116/121 kDa.

Molecular Weight of PRDM10 isoforms 4/5/6: 131/122/137 kDa.

## 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.