



## PRDM14 (N-14): sc-87368

### 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, called PR-plus and PR-minus, which differ by the presence or absence of the PR domain, respectively. The PR-plus product is underexpressed or disrupted in cancer cells, 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 factor of malignancy. PRDM14 (PR domain-containing protein 14), also known as PFM11, is a 571 amino acid protein belonging to the PRDM family. Localizing to the nucleus, PRDM14 contains six C<sub>2</sub>H<sub>2</sub>-type zinc fingers and one SET domain. It is believed to participate in transcriptional regulation and may be involved in cell differentiation and tumorigenesis.

### REFERENCES

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3. Jiang, G.L. and Huang, S. 2000. The yin-yang of PR-domain family genes in tumorigenesis. *Histol. Histopathol.* 15: 109-117.
4. 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.
5. Wilm, T.P. and Solnica-Krezel, L. 2004. Essential roles of a zebrafish PRDM1/blim organogenesis. *Development* 132: 393-404.
6. Fitzgerald, J. and Bateman, J.F. 2004. Why mice have lost genes for COL21A1, STK17A, GPR145 and AHRI: evidence for gene deletion at evolutionary breakpoints in the rodent lineage. *Trends Genet.* 20: 408-412.
7. Fumasoni, I., et al. 2007. Family expansion and gene rearrangements contributed to the functional specialization of PRDM genes in vertebrates. *BMC Evol. Biol.* 7: 187-187.
8. Nishikawa, N., et al. 2007. Gene amplification and overexpression of PRDM14 in breast cancers. *Cancer Res.* 67: 9649-9657.
9. Tsuneyoshi, N., et al. 2008. PRDM14 suppresses expression of differentiation marker genes in human embryonic stem cells. *Biochem. Biophys. Res. Commun.* 367: 899-905.

### CHROMOSOMAL LOCATION

Genetic locus: PRDM14 (human) mapping to 8p13.3.

### SOURCE

PRDM14 (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of PRDM14 of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87368 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-87368 X, 100 µg/0.1 ml.

### APPLICATIONS

PRDM14 (N-14) is recommended for detection of PRDM14 of 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).

Suitable for use as control antibody for PRDM14 siRNA (h): sc-77737, PRDM14 shRNA Plasmid (h): sc-77737-SH and PRDM14 shRNA (h) Lentiviral Particles: sc-77737-V.

PRDM14 (N-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PRDM14: 64 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.