

# PRDM7 (K-17): sc-165287

## 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. PRDM7 (PR domain-containing protein 7), also known as PFM4, is a 407 amino acid protein belonging to the PRDM family. Localizing to the nucleus, PRDM7 contains four C2H2-type zinc fingers and one SET domain. It is believed to participate in transcriptional regulation and may be involved in cell differentiation and tumorigenesis. Due to alternative splicing events, two isoforms exist for PRDM7, namely PRDM7A and PRDM7B.

## 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. Huang, S. 1999. The retinoblastoma protein-interacting zinc finger gene RIZ in 1p36-linked cancers. *Front. Biosci.* 4: D528-532.
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. Hawkins, R.D., et al. 2003. Gene expression differences in quiescent versus regenerating hair cells of avian sensory epithelia: implications for human hearing and balance disorders. *Hum. Mol. Genet.* 12: 1261-1272.
6. Ricketts, S.L., et al. 2003. Identification of three 11p11.2 candidate liver tumor suppressors through analysis of known human genes. *Mol. Carcinog.* 36: 90-99.
7. Wilm, T.P., and Solnica-Krezel, L. 2004. Essential roles of a zebrafish PRDM1/blim organogenesis. *Development* 132: 393-404.

## CHROMOSOMAL LOCATION

Genetic locus: PRDM7 (human) mapping to 16q24.3.

## SOURCE

PRDM7 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PRDM7 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-165287 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PRDM7 (K-17) is recommended for detection of PRDM7 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); non cross-reactive with other PRDM family members.

Suitable for use as control antibody for PRDM7 siRNA (h): sc-93151, PRDM7 shRNA Plasmid (h): sc-93151-SH and PRDM7 shRNA (h) Lentiviral Particles: sc-93151-V.

Molecular Weight of PRDM7: 46 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.