

# PRDM6 siRNA (h): sc-92055

## BACKGROUND

PRDM6 is a zinc-finger domain containing protein that belongs to a family of PRDM (PRDI-BF1 and RIZ homology domain) proteins that act as agents for chromatin remodeling. The PRDM family is often associated with gene regulation and chromatin remodeling by way of their histone methyltransferase abilities. PRDM6 can function as a transcriptional repressor through interactions with the deacetylases and methyltransferases associated with Histone H4. PRDM6 is expressed in vascular precursor cells and likely has a role in development and differentiation of vascular tissue through its ability to remodel chromatin.

## REFERENCES

1. Luo, J., et al. 2005. Strong reproductive skew among males in the multiply mated swordtail *Xiphophorus multilineatus* (Teleostei). *J. Hered.* 96: 346-355.
2. Oppezzo, P., et al. 2005. Different isoforms of BSAP regulate expression of AID in normal and chronic lymphocytic leukemia B cells. *Blood* 105: 2495-2503.
3. Davis, C.A., et al. 2006. PRISM/PRDM6, a transcriptional repressor that promotes the proliferative gene program in smooth muscle cells. *Mol. Cell. Biol.* 26: 2626-2636.
4. 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.
5. Armengol, G., et al. 2007. Genomic imbalances in *Schistosoma*-associated and non-*Schistosoma*-associated bladder carcinoma. An array comparative genomic hybridization analysis. *Cancer Genet. Cytogenet.* 177: 16-19.
6. Wu, Y., et al. 2008. PRDM6 is enriched in vascular precursors during development and inhibits endothelial cell proliferation, survival, and differentiation. *J. Mol. Cell. Cardiol.* 44: 47-58.

## CHROMOSOMAL LOCATION

Genetic locus: PRDM6 (human) mapping to 5q23.2.

## PRODUCT

PRDM6 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PRDM6 shRNA Plasmid (h): sc-92055-SH and PRDM6 shRNA (h) Lentiviral Particles: sc-92055-V as alternate gene silencing products.

For independent verification of PRDM6 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-92055A, sc-92055B and sc-92055C.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

PRDM6 siRNA (h) is recommended for the inhibition of PRDM6 expression in human cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PRDM6 gene expression knockdown using RT-PCR Primer: PRDM6 (h)-PR: sc-92055-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARCH USE

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