

PRDM12 siRNA (m): sc-152446

BACKGROUND

The PR-domain containing proteins (PRDMs) have a common involvement in the modulation of gene activities. PRDM1, previously designated Blimp1, is a transcriptional repressor expressed during the late stages of B-cell differentiation in immunoglobulin-secreting plasma cells, as well as in long-lived, bone marrow plasma cells. PRDM3, or myelodysplasia syndrome protein 1 (MDS1), is a transcription factor associated with myeloid leukemia. Originally identified as SC-1, PRDM4 is predominantly found in the cytoplasm, but translocates into the nucleus upon serum-starvation. PRDM5, PRDM8, and PRDM10 may function as transcription factors. PRDM12 may represent a tumor suppressor involved in chronic myeloid leukemia (CML).

REFERENCES

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- Kolomietz, E., Marrano, P., Yee, K., Thai, B., Braude, I., Kolomietz, A., Chun, K., Minkin, S., Kamel-Reid, S., Minden, M. and Squire, J.A. 2003. Quantitative PCR identifies a minimal deleted region of 120 kb extending from the Philadelphia chromosome ABL translocation breakpoint in chronic myeloid leukemia with poor outcome. *Leukemia* 17: 1313-1323.
- Reid, A.G. and Nacheva, E.P. 2003. A potential role for PRDM12 in the pathogenesis of chronic myeloid leukaemia with derivative chromosome 9 deletion. *Leukemia* 18: 178-180.
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CHROMOSOMAL LOCATION

Genetic locus: Prdm12 (mouse) mapping to 2 B.

PRODUCT

PRDM12 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PRDM12 shRNA Plasmid (m): sc-152446-SH and PRDM12 shRNA (m) Lentiviral Particles: sc-152446-V as alternate gene silencing products.

For independent verification of PRDM12 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152446A, sc-152446B and sc-152446C.

PROTOCOLS

See our web site at 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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PRDM12 siRNA (m) is recommended for the inhibition of PRDM12 expression in mouse 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 μ M in 66 μ 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.

GENE EXPRESSION MONITORING

PRDM12 (49AT1111.91.20): sc-130242 is recommended as a control antibody for monitoring of PRDM12 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PRDM12 gene expression knockdown using RT-PCR Primer: PRDM12 (m)-PR: sc-152446-PR (20 μ 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.