SANTA CRUZ BIOTECHNOLOGY, INC.

SWI5 siRNA (m): sc-141948

BACKGROUND

Expression of the yeast HO gene in late G_1 of the cell cycle requires the SWI/SNF chromatin remodeling complex, the Gcn5 histone acetyltransferase, and two different sequence-specific transcriptional activators, Swi5 and Swi4/Swi6. Swi5 is a cell cycle-regulated transcription factors that activates expression of early G_1-specific genes in *Saccharomyces cerevisiae*. Swi5 regulates the expression of several target genes involved in mating type switching, exit from mitosis and cell wall function. Swi5 has zinc finger DNA-binding domains that are highly conserved and Swi5 activates the HO gene expression *in vivo*. Additionally, Swi5 is a member of the CLB2 cluster and regulates the transcription of the SIC1 Cdk inhibitor in late mitosis.

REFERENCES

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2. Coppo, P., et al. 2006. BCR-ABL activates STAT3 via JAK and MEK pathways in human cells. Br. J. Haematol. 134: 171-179.
3. Zheng, X., et al. 2006. BCR and its mutants, the reciprocal t(9;22)-associated ABL/BCR fusion proteins, differentially regulate the cytoskeleton and cell motility. BMC Cancer 7: 262.
4. Burmeister, T., et al. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. Haematologica 92: 1699-1702.
5. Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (Rendu-Osler disease). Respiration 74: 361-378.
6. Fernandez-L, A., et al. 2007. Gene expression fingerprinting for human hereditary hemorrhagic telangiectasia. Hum. Mol. Genet. 16: 1515-1533.
7. Gardiner, J., et al. 2007. Potential role of tubulin acetylation and microtubule-based protein trafficking in familial dysautonomia. Traffic 8: 1145-1149.

CHROMOSOMAL LOCATION

Genetic locus: Swi5 (mouse) mapping to 2 B.

PRODUCT

SWI5 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SWI5 shRNA Plasmid (m): sc-141948-SH and SWI5 shRNA (m) Lentiviral Particles: sc-141948-V as alternate gene silencing products.

For independent verification of SWI5 (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-141948A, sc-141948B and sc-141948C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SWI5 siRNA (m) is recommended for the inhibition of SWI5 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 µM in 66 µl. 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 SWI5 gene expression knockdown using RT-PCR Primer: SWI5 (m)-PR: sc-141948-PR (20 µl). 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.