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SANTA CRUZ BIOTECHNOLOGY, INC.

# PROX2 siRNA (m): sc-152490

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Homeodomain proteins are key regulators in the growth and development of tissues undergoing morphogenesis. PROX2 (prospero homeobox 2), also known as homeobox prospero-like protein PROX2, is a 592 amino acid protein that localizes to nucleus and belongs to the prospero homeobox family. Conserved in chimpanzee, bovine, mouse and rat, PROX2 exists as two alternatively spliced isoforms. Similar to PROX1, PROX2 contains one prospero-type homeobox DNA-binding domain. PROX2 functions as a transcriptional activator and contains an N-terminal region activation domain. Although expressed during embryogenesis, PROX2 is not essential for embryonic development, horizontal cell generation or fertility, in contrast to PROX1. PROX2 is also expressed in adult testis. The gene that encodes PROX2 maps to human chromosome 14q24.3.

## REFERENCES


1. Heilig, R., Eckenberg, R., Petit, J.L., Fonknechten, N., Da Silva, C., Cattolico, L., Levy, M., Barbe, V., de Berardinis, V., Ureta-Vidal, A., Pelletier, E., Vico, V., Anthouard, V., Rowen, L., Madan, A., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
2. Nishijima, I. and Ohtoshi, A. 2006. Characterization of a novel prospero-related homeobox gene, Prox2. Mol. Genet. Genomics 275: 471-478.
3. Kirjavainen, A., Sulg, M., Heyd, F., Alitalo, K., Ylä-Herttuala, S., Möröy, T., Petrova, T.V. and Pirvola, U. 2008. Prox1 interacts with Atoh1 and Gfi1, and regulates cellular differentiation in the inner ear sensory epithelia. Dev. Biol. 322: 33-45.
4. Deguchi, T., Fujimori, K.E., Kawasaki, T., Ohgushi, H. and Yuba, S. 2009. Molecular cloning and gene expression of the prox1a and prox1b genes in the medaka, Oryzias latipes. Gene Expr. Patterns 9: 341-347.
5. Poulogiannis, G., Ichimura, K., Hamoudi, R.A., Luo, F., Leung, S.Y., Yuen, S.T., Harrison, D.J., Wyllie, A.H. and Arends, M.J. 2010. Prognostic relevance of DNA copy number changes in colorectal cancer. J. Pathol. 220: 338-347.


## CHROMOSOMAL LOCATION

Genetic locus: Prox2 (mouse) mapping to 12 D2.

## PRODUCT

PROX2 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 PROX2 shRNA Plasmid (m): sc-152490-SH and PROX2 shRNA (m) Lentiviral Particles: sc-152490-V as alternate gene silencing products.

For independent verification of PROX2 (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-152490A, sc-152490B and sc-152490C.

## 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

PROX2 siRNA (m) is recommended for the inhibition of PROX2 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 PROX2 gene expression knockdown using RT-PCR Primer: PROX2 (m)-PR: sc-152490-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.