

# Seh1 siRNA (h): sc-76465

## BACKGROUND

Seh1, also known as Sec13-like protein, is a 421 amino acid protein belonging to the WD repeat Sec13 family. Localized to the nucleus, Seh1 is a component of the nuclear pore complex Nup107-160. Nuclear pore complexes control bidirectional transport of macromolecules between the cytoplasm and the nucleus. All components of the complex Nup107-160, including Seh1, localize to the kinetochores during mitosis. Seh1 is expressed as two isoforms produced by alternative splicing and contains six WD repeats.

## REFERENCES

1. Le Rouzic, E., Mousnier, A., Rustum, C., Stutz, F., Hallberg, E., Dargemont, C. and Benichou, S. 2002. Docking of HIV-1 Vpr to the nuclear envelope is mediated by the interaction with the nucleoporin hCG1. *J. Biol. Chem.* 277: 45091-45098.
2. Cronshaw, J.M., Krutchinsky, A.N., Zhang, W., Chait, B.T. and Matunis, M.J. 2002. Proteomic analysis of the mammalian nuclear pore complex. *J. Cell Biol.* 158: 915-927.
3. Enninga, J., Levay, A. and Fontoura, B.M. 2003. Sec13 shuttles between the nucleus and the cytoplasm and stably interacts with Nup96 at the nuclear pore complex. *Mol. Cell. Biol.* 23: 7271-7284.
4. Loïodice, I., Alves, A., Rabut, G., Van Overbeek, M., Ellenberg, J., Sibarita, J.B. and Doye, V. 2004. The entire Nup107-160 complex, including three new members, is targeted as one entity to kinetochores in mitosis. *Mol. Biol. Cell* 15: 3333-3344.
5. Zuccolo, M., Alves, A., Galy, V., Bolhy, S., Formstecher, E., Racine, V., Sibarita, J.B., Fukagawa, T., Shiekhata, R., Yen, T. and Doye, V. 2007. The human Nup107-160 nuclear pore subcomplex contributes to proper kinetochore functions. *EMBO J.* 26: 1853-1864.
6. He, Y., Yang, F., Wang, F., Song, S.X., Li, D.A., Guo, Y.J. and Sun, S.H. 2007. The upregulation of expressed proteins in Hep G2 cells transfected by the recombinant plasmid-containing HBx gene. *Scand. J. Immunol.* 65: 249-256.

## CHROMOSOMAL LOCATION

Genetic locus: SEH1L (human) mapping to 18p11.21.

## PRODUCT

Seh1 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 Seh1 shRNA Plasmid (h): sc-76465-SH and Seh1 shRNA (h) Lentiviral Particles: sc-76465-V as alternate gene silencing products.

For independent verification of Seh1 (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-76465A, sc-76465B and sc-76465C.

## RESEARCH USE

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

## 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

Seh1 siRNA (h) is recommended for the inhibition of Seh1 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 Seh1 gene expression knockdown using RT-PCR Primer: Seh1 (h)-PR: sc-76465-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

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