

## Sec3 siRNA (h): sc-89220

### BACKGROUND

The exocyst is a conserved multisubunit complex involved in the docking of post-Golgi transport vesicles to sites of membrane remodeling during cellular processes such as polarization, migration and division. Sec3, also known as EXOC1 (exocyst complex component 1), is a 894 amino acid protein that belongs to the SEC3 family. A component of the exocyst complex, Sec3 is involved in the docking of exocytic vesicles with fusion sites on the plasma membrane. The exocyst complex is composed of Sec3, Sec5, Sec6, Sec8, Sec10, Sec15A, Exo70 and Exo84 proteins. Human Sec3 lacks about 480 N-terminal amino acids, including a potential Rho1-binding site, compared with yeast Sec3. The Sec3 protein physically interacts with the C-terminus of the glycine transporter GLYT1. Existing as two alternatively splice isoforms, the Sec3 gene is conserved in chimpanzee, canine, bovine, mouse, chicken, zebrafish, fruit fly, mosquito, *C. elegans*, *M. grisea*, *N. crassa*, *A. thaliana* and rice, and maps to human chromosome 4q12.

### REFERENCES

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2. Brymora, A., Valova, V.A., Larsen, M.R., Roufogalis, B.D. and Robinson, P.J. 2001. The brain exocyst complex interacts with RalA in a GTP-dependent manner: identification of a novel mammalian Sec3 gene and a second Sec15 gene. *J. Biol. Chem.* 276: 29792-29797.
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5. Cubelos, B., Gimenez, C. and Zafra, F. 2005. The glycine transporter GLYT1 interacts with Sec3, a component of the exocyst complex. *Neuropharmacology* 49: 935-944.
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### CHROMOSOMAL LOCATION

Genetic locus: EXOC1 (human) mapping to 4q12.

### PROTOCOLS

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

### PRODUCT

Sec3 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 Sec3 shRNA Plasmid (h): sc-89220-SH and Sec3 shRNA (h) Lentiviral Particles: sc-89220-V as alternate gene silencing products.

For independent verification of Sec3 (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-89220A, sc-89220B and sc-89220C.

### 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

Sec3 siRNA (h) is recommended for the inhibition of Sec3 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 Sec3 gene expression knockdown using RT-PCR Primer: Sec3 (h)-PR: sc-89220-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.