

Sec10 siRNA (h): sc-106900

BACKGROUND

The mammalian exocyst complex (Sec6/8) targets exocytic vesicles to specific docking sites on the plasma membrane. Sec10 is one of eight protein subunits composing the mammalian exocyst complex (Sec3, Sec5, Sec6, Sec8, Sec10, Sec15, Exo70, and Exo84). Sec10, a 77 kDa protein, subcomplexes with Sec15. Human Sec10 maps to chromosome 14q22.3.

REFERENCES

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- Roth, D., et al. 1998. Dominant negative alleles of Sec10 reveal distinct domains involved in secretion and morphogenesis in yeast. *Mol. Biol. Cell* 9: 1725-1739.
- Lipschutz, J.H., et al. 2000. Exocyst is involved in cystogenesis and tubulogenesis and acts by modulating synthesis and delivery of basolateral plasma membrane and secretory proteins. *Mol. Biol. Cell* 11: 4259-4275.
- Wang, H., et al. 2002. The multiprotein exocyst complex is essential for cell separation in *Schizosaccharomyces pombe*. *Mol. Biol. Cell* 13: 515-529.
- Prigent, M., et al. 2003. ARF6 controls post-endocytic recycling through its downstream exocyst complex effector. *J. Cell Biol.* 163: 1111-1121.
- Lipschutz, J., et al. 2003. The exocyst affects protein synthesis by acting on the translocation machinery of the endoplasmic reticulum. *J. Biol. Chem.* 278: 20954-20960.

CHROMOSOMAL LOCATION

Genetic locus: EXOC5 (human) mapping to 14q22.3.

PRODUCT

Sec10 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Sec10 shRNA Plasmid (h): sc-106900-SH and Sec10 shRNA (h) Lentiviral Particles: sc-106900-V as alternate gene silencing products.

For independent verification of Sec10 (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-106900A, sc-106900B and sc-106900C.

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

Sec10 siRNA (h) is recommended for the inhibition of Sec10 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 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

Sec10 (C-4): sc-514802 is recommended as a control antibody for monitoring of Sec10 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Sec10 gene expression knockdown using RT-PCR Primer: Sec10 (h)-PR: sc-106900-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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.