SANTA CRUZ BIOTECHNOLOGY, INC.

Sec15B siRNA (m): sc-45353

BACKGROUND

Exocytosis, crucial in membrane trafficking, mediates hormone and neurotransmitter secretion out of the cell as well as the incorporation of membrane proteins and lipids to the plasma membrane. It is crucial for cell-cell communication, cell growth and cell polarity. The exocyst complex is a multi-protein complex that consists of Sec3, Sec5, Sec6, Sec8, Sec10, Sec15, Exo70 and Exo84 and is essential for targeting exocytic vesicles to specific docking sites on the plasma membrane. The exocyst complex inhibits Tubulin polymerization *in vitro,* which implicates the exocyst in modulating microtubule dynamics underlying exocytosis. Sec15A (also designated Sec15L or Sec15p) and Sec15B (also designated Sec15L2) both belong to the Sec15 family of proteins. Sec15 can colocalize with Rab11 (a recycling endosome marker) and exhibits a GTP-dependent interaction with the Rab11 GTPase.

REFERENCES

1. Wang, S., Liu, Y., Adamson, C.L., Valdez, G., Guo, W. and Hsu, S.C. 2004. The mammalian exocyst, a complex required for exocytosis, inhibits Tubulin polymerization. J. Biol. Chem. 279: 35958-35966.
2. Zhang, X.M., Ellis, S., Sriratana, A., Mitchell, C.A. and Rowe, T. 2004. Sec15 is an effector for the Rab11 GTPase in mammalian cells. J. Biol. Chem. 279: 43027-43034.
3. Hsu, S.C., TerBush, D., Abraham, M. and Guo, W. 2004. The exocyst complex in polarized exocytosis. Int. Rev. Cytol. 233: 243-265.
4. SWISS-PROT/TrEMBL (Q8TAG9). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: Exoc6b (mouse) mapping to 6 C3.

PRODUCT

Sec15B 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 Sec15B shRNA Plasmid (m): sc-45353-SH and Sec15B shRNA (m) Lentiviral Particles: sc-45353-V as alternate gene silencing products.

For independent verification of Sec15B (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-45353A, sc-45353B and sc-45353C.

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

Sec15B siRNA (m) is recommended for the inhibition of Sec15B 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 Sec15B gene expression knockdown using RT-PCR Primer: Sec15B (m)-PR: sc-45353-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.

PROTOCOLS

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