

SEC22C siRNA (m): sc-153307

BACKGROUND

The *S. cerevisiae* protein Sec22p functions as a v-SNARE of transport vesicles and plays a role in both retrograde and anterograde vesicular transport between the Golgi and the endoplasmic reticulum (ER). There are three mammalian homologs to Sec22p, namely SEC22A, SEC22B and SEC22C. SEC22C (SEC22 vesicle trafficking protein homolog C), also known as SEC22L3, is a 303 amino acid multi-pass membrane protein of the endoplasmic reticulum. Ubiquitously expressed, SEC22C belongs to the synaptobrevin family, contains one longin domain and exists as three alternatively spliced isoforms. The gene encoding SEC22C maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Sec22c (mouse) mapping to 9 F4.

RESEARCH USE

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

PRODUCT

SEC22C 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SEC22C shRNA Plasmid (m): sc-153307-SH and SEC22C shRNA (m) Lentiviral Particles: sc-153307-V as alternate gene silencing products.

For independent verification of SEC22C (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-153307A, sc-153307B and sc-153307C.

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

SEC22C siRNA (m) is recommended for the inhibition of SEC22C 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SEC22C gene expression knockdown using RT-PCR Primer: SEC22C (m)-PR: sc-153307-PR (20 μ 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 for detailed protocols and support products.