

Synaptotagmin XV siRNA (m): sc-153981

BACKGROUND

Synaptotagmin XV (SytxV), also known as Synaptotagmin-15 (SYT15) or Chr10Syt, is a 421 amino acid single-pass type III membrane protein that belongs to the synaptotagmin family and contains two C2 domains. Both C2 domains are located on the C-terminal of Synaptotagmin XV and neither one mediates calcium-dependent or -independent phospholipid binding. Acting in non-neuronal tissues, Synaptotagmin XV may be involved in the trafficking and exocytosis of secretory vesicles. Synaptotagmin XV exists as four alternatively spliced isoforms that form homodimers. The gene that encodes Synaptotagmin XV contains 15,957 bases and maps to human chromosome 10q11.1. Making up nearly 4.5% of the human genome, chromosome 10 contains over 800 genes and 135 million nucleotides. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, Cockayne syndrome and porphyria.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Syt15 (mouse) mapping to 14 B.

PRODUCT

Synaptotagmin XV siRNA (m) is a target-specific 19-25 nt siRNA 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 Synaptotagmin XV shRNA Plasmid (m): sc-153981-SH and Synaptotagmin XV shRNA (m) Lentiviral Particles: sc-153981-V as alternate gene silencing products.

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

Synaptotagmin XV siRNA (m) is recommended for the inhibition of Synaptotagmin XV 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 Synaptotagmin XV gene expression knockdown using RT-PCR Primer: Synaptotagmin XV (m)-PR: sc-153981-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.