

# Syntaxin 12 siRNA (h): sc-88621

## BACKGROUND

Syntaxins, a family of proteins involved in the fusion of synaptic vesicles with the plasma membrane, display broad tissue distribution and contain C-terminal hydrophobic domains that direct them to their respective intracellular compartments. Syntaxin 12, also known as STX12, STX13 or STX14, is a 276 amino acid single-pass membrane protein that contains one t-SNARE coiled-coil homology domain and belongs to the Syntaxin family. Syntaxin 12 regulates protein transport between late endosomes and the *trans*-Golgi network and interacts with ABC1 (ATP-binding cassette transporter A1), a protein that facilitates cellular release of choline-phospholipids and cholesterol to apoA-I (apolipoprotein A-I). Found in recycling endosomes, Syntaxin 12 colocalizes with transferrin receptor and is encoded by a gene located on human chromosome 1p35.3.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: STX12 (human) mapping to 1p35.3.

## PROTOCOLS

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

## PRODUCT

Syntaxin 12 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 Syntaxin 12 shRNA Plasmid (h): sc-88621-SH and Syntaxin 12 shRNA (h) Lentiviral Particles: sc-88621-V as alternate gene silencing products.

For independent verification of Syntaxin 12 (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-88621A, sc-88621B and sc-88621C.

## 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

Syntaxin 12 siRNA (h) is recommended for the inhibition of Syntaxin 12 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 Syntaxin 12 gene expression knockdown using RT-PCR Primer: Syntaxin 12 (h)-PR: sc-88621-PR (20  $\mu$ l, 572 bp). 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.