



SNX13 siRNA (h): sc-89494

BACKGROUND

Sorting nexin (SNX) proteins are members of a large family of hydrophilic PX (phospholipid-binding motif) domain-containing proteins that interact with a variety of receptor types. SNXs are widely expressed, although the tissue distribution of each SNX mRNA varies. The ability of SNXs to bind specific phospholipids, as well as their tendency to form protein-protein complexes, suggests a role for these proteins in cellular membrane trafficking and protein sorting. SNXs may also function specifically in pro-degradative sorting, internalization, endosomal recycling or simply in endosomal sorting. SNX13 (sorting nexin 13), alternatively known as RGS-PX1 (RGS domain- and PHOX domain-containing protein), is a 968 amino acid member of the sorting nexin family. Existing as two alternatively spliced isoforms, SNX13 is involved in several stages of intracellular trafficking and is encoded by a gene located on human chromosome 7p21.1. SNX13 contains one PX (phox homology) domain, a PXA domain and a RGS domain.

REFERENCES

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2. Zheng, B., et al. 2001. RGS-PX1, a GAP for G_{α_s} and sorting nexin in vesicular trafficking. *Science* 294: 1939-1942.
3. Kosan, C. and Kunz, J. 2002. Identification and characterisation of the gene TWIST NEIGHBOR (TWISTNB) located in the microdeletion syndrome 7p21 region. *Cytogenet. Genome Res.* 97: 167-170.
4. Worby, C.A. and Dixon, J.E. 2002. Sorting out the cellular functions of sorting nexins. *Nat. Rev. Mol. Cell Biol.* 3: 919-931.
5. Hillman, R.T., et al. 2004. An unappreciated role for RNA surveillance. *Genome Biol.* 5: R8.
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CHROMOSOMAL LOCATION

Genetic locus: SNX13 (human) mapping to 7p21.1.

PRODUCT

SNX13 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 SNX13 shRNA Plasmid (h): sc-89494-SH and SNX13 shRNA (h) Lentiviral Particles: sc-89494-V as alternate gene silencing products.

For independent verification of SNX13 (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-89494A, sc-89494B and sc-89494C.

PROTOCOLS

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

SNX13 siRNA (h) is recommended for the inhibition of SNX13 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SNX13 gene expression knockdown using RT-PCR Primer: SNX13 (h)-PR: sc-89494-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.