SANTA CRUZ BIOTECHNOLOGY, INC.

SNX22 siRNA (h): sc-90168

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. SNX22 (sorting nexin 22) is a 193 amino acid protein that contains one phox domain and belongs to the SNX family. Like other members of the SNX family, SNX22 is thought to play a role in intracellular trafficking events throughout the cell.

REFERENCES

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2. Worby, C.A. and Dixon, J.E. 2002. Sorting out the cellular functions of sorting nexins. Nat. Rev. Mol. Cell Biol. 3: 919-931.
3. Carlton, J., Bujny, M., Rutherford, A. and Cullen, P. 2005. Sorting nexins—unifying trends and new perspectives. Traffic 6: 75-82.
4. Seet, L.F. and Hong, W. 2006. The Phox (PX) domain proteins and membrane traffic. Biochim. Biophys. Acta 1761: 878-896.
5. Song, J., Zhao, K.Q., Newman, C.L., Vinarov, D.A. and Markley, J.L. 2007. Solution structure of human sorting nexin 22. Protein Sci. 16: 807-814.
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CHROMOSOMAL LOCATION

Genetic locus: SNX22 (human) mapping to 15q22.31.

PRODUCT

SNX22 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SNX22 shRNA Plasmid (h): sc-90168-SH and SNX22 shRNA (h) Lentiviral Particles: sc-90168-V as alternate gene silencing products.

For independent verification of SNX22 (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-90168A, sc-90168B and sc-90168C.

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.

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

SNX22 siRNA (h) is recommended for the inhibition of SNX22 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 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 SNX22 gene expression knockdown using RT-PCR Primer: SNX22 (h)-PR: sc-90168-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.