



# Nup160 siRNA (h): sc-106318

## BACKGROUND

Nuclear pore complexes (NPCs) are the channels for the bi-directional movement of macromolecules between the nucleus and cytoplasm, and contain more than 100 different subunits. Many of them belong to a family called nucleoporins, which are characterized by the presence of O-linked N-acetylglucosamine moieties and a distinctive pentapeptide repeat (XFXFG). Nuclear pore complex protein Nup160 (Nup160), together with Nup133, Nup107 and Nup96, forms the Nup160 subcomplex in the nuclear pore. This complex is important in RNA export and interacts with Nup98 and Nup153.

## REFERENCES

1. McMorow, I., et al. 1994. Sequence analysis of cDNA encoding a human nuclear pore complex protein, hNup152. *Biochim. Biophys. Acta* 1217: 219-223.
2. Bodoor, K., et al. 1999. Sequential recruitment of NPC proteins to the nuclear periphery at the end of mitosis. *J. Cell Sci.* 112: 2253-2264.
3. Vasu, S., et al. 2001. Novel vertebrate nucleoporins Nup133 and Nup160 play a role in mRNA export. *J. Cell Biol.* 155: 339-354.
4. Griffis, E.R., et al. 2003. Nup98 localizes to both nuclear and cytoplasmic sides of the nuclear pore and binds to two distinct nucleoporin subcomplexes. *Mol. Biol. Cell* 14: 600-610.
5. Boehmer, T., et al. 2003. Depletion of a single nucleoporin, Nup107, prevents the assembly of a subset of nucleoporins into the nuclear pore complex. *Proc. Natl. Acad. Sci. USA* 100: 981-985.
6. Krull, S., et al. 2004. Nucleoporins as components of the nuclear pore complex core structure and Tpr as the architectural element of the nuclear basket. *Mol. Biol. Cell* 15: 4261-4277.
7. SWISS-PROT/TrEMBL (Q12769). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## CHROMOSOMAL LOCATION

Genetic locus: NUP160 (human) mapping to 11p11.2.

## PRODUCT

Nup160 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 Nup160 shRNA Plasmid (h): sc-106318-SH and Nup160 shRNA (h) Lentiviral Particles: sc-106318-V as alternate gene silencing products.

For independent verification of Nup160 (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-106318A, sc-106318B and sc-106318C.

## PROTOCOLS

See our web site at [www.scbt.com](http://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  $\mu$ 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

Nup160 siRNA (h) is recommended for the inhibition of Nup160 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 Nup160 gene expression knockdown using RT-PCR Primer: Nup160 (h)-PR: sc-106318-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS

1. Kinoshita, Y., et al. 2012. Alterations in nuclear pore architecture allow cancer cell entry into or exit from drug-resistant dormancy. *Am. J. Pathol.* 180: 375-389.

## RESEARCH USE

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