

# Nup62CL siRNA (m): sc-150126

## BACKGROUND

The nuclear pore complex (NPC) mediates bidirectional macromolecular traffic between the nucleus and cytoplasm in eukaryotic cells and comprises more than 100 different subunits. Many of the subunits belong to a family called nucleoporins (Nups), which are characterized by the presence of O-linked N-acetylglucosamine moieties and a distinctive pentapeptide repeat (XFXFG). The short filaments extending from the cytoplasmic face of nuclear pore complexes contain docking sites for nuclear import substrates. Nup62CL (Nucleoporin-62 C-terminal-like protein) is a 184 amino acid protein that shares sequence similarity with the C-terminal region of Nup62, which mediates protein-protein interactions through its coiled-coil formation. Nup62CL may contain one N-acetylglucosamine side chain site. There are two isoforms of Nup62CL that are produced as a result of alternative splicing events.

## REFERENCES

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2. Basel-Vanagaite, L., et al. 2006. Mutated Nup62 causes autosomal recessive infantile bilateral striatal necrosis. *Ann. Neurol.* 60: 214-222.
3. Lazarus, B.D., et al. 2006. Recombinant O-GlcNAc transferase isoforms: identification of O-GlcNAcase, yes tyrosine kinase, and Tau as isoform-specific substrates. *Glycobiology* 16: 415-421.
4. Fukuhara, T., et al. 2006. Functional analysis of nuclear pore complex protein Nup62/p62 using monoclonal antibodies. *Hybridoma* 25: 51-59.
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6. Leng, Y., et al. 2007. Nuclear import of the MUC1-C oncoprotein is mediated by nucleoporin Nup62. *J. Biol. Chem.* 282: 19321-19330.
7. Echeverría, P.C., et al. 2009. Nuclear import of the glucocorticoid receptor-HSP 90 complex through the nuclear pore complex is mediated by its interaction with Nup62 and importin  $\beta$ . *Mol. Cell. Biol.* 29: 4788-4797.

## CHROMOSOMAL LOCATION

Genetic locus: Nup62cl (mouse) mapping to X F1.

## PRODUCT

Nup62CL siRNA (m) 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 Nup62CL shRNA Plasmid (m): sc-150126-SH and Nup62CL shRNA (m) Lentiviral Particles: sc-150126-V as alternate gene silencing products.

For independent verification of Nup62CL (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-150126A, sc-150126B and sc-150126C.

## 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

Nup62CL siRNA (m) is recommended for the inhibition of Nup62CL 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  $\mu$ 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 Nup62CL gene expression knockdown using RT-PCR Primer: Nup62CL (m)-PR: sc-150126-PR (20  $\mu$ 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.

## PROTOCOLS

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