SANTA CRUZ BIOTECHNOLOGY, INC.

NupL2 siRNA (m): sc-106322

BACKGROUND

The nuclear pore complex (NPC) mediates bidirectional macromolecular traffic between the nucleus and cytoplasm in eukaryotic cells and is comprised of 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). NupL2 (Nucleoporin-like protein 2) is a 423 amino acid protein required for the export of mRNAs containing poly(A) tails from the nucleus into the cytoplasm. NupL2 contains FG repeats that may form an affinity gradient, guiding the transport proteins unidirectionally with their cargo through the NPC, and serve as interaction sites for karyopherins. Ubiquitously expressed, NupL2 also interacts with TAP, a nuclear export protein, Rev and Vpr, HIV-1 virus proteins, and forms a heterotrimer with Nup155 and Gle1 *in vitro*. Three isoforms exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Nupl2 (mouse) mapping to 5 A3.

RESEARCH USE

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

PRODUCT

NupL2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NupL2 shRNA Plasmid (m): sc-106322-SH and NupL2 shRNA (m) Lentiviral Particles: sc-106322-V as alternate gene silencing products.

For independent verification of NupL2 (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-106322A, sc-106322B and sc-106322C.

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

NupL2 siRNA (m) is recommended for the inhibition of NupL2 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 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 NupL2 gene expression knockdown using RT-PCR Primer: NupL2 (m)-PR: sc-106322-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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