# HNRNPA1L2 siRNA (h): sc-106523



The Power to Question

## **BACKGROUND**

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription and pre-mRNA processing as well as mature mRNA transport to the cytoplasm and translation. They also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA polymerase II. There are approximately 20 known hnRNP proteins, and their complexes are the major constituents of the spliceosome. The majority of hnRNP proteins components are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm. HNRNPA1L2 (heterogeneous nuclear ribonucleoprotein A1-like 2), also known as hnRNP core protein A1-like 2, is a 320 amino acid protein that contains two RRM (RNA recognition motif) domains, which are implicated in the regulation of alternative splicing and protein components of snRNPs. Like other hnRNPs, it is probable that HNRNPA1L2 is involved in the packaging of pre-mRNA into hnRNP particles and the modulation of splice site selection.

## **REFERENCES**

- Martinez-Contreras, R., Cloutier, P., Shkreta, L., Fisette, J.F., Revil, T. and Chabot, B. 2007. hnRNP proteins and splicing control. Adv. Exp. Med. Biol. 623: 123-147.
- Bolognani, F. and Perrone-Bizzozero, N.I. 2008. RNA-protein interactions and control of mRNA stability in neurons. J. Neurosci. Res. 86: 481-489.
- 3. He, Y. and Smith, R. 2009. Nuclear functions of heterogeneous nuclear ribonucleoproteins A/B. Cell. Mol. Life Sci. 66: 1239-1256.
- 4. Haley, B., Paunesku, T., Protic, M. and Woloschak, G.E. 2009. Response of heterogeneous ribonuclear proteins (hnRNP) to ionising radiation and their involvement in DNA damage repair. Int. J. Radiat. Biol. 85: 643-655.
- Carmody, S.R. and Wente, S.R. 2009. mRNA nuclear export at a glance. J. Cell Sci. 122: 1933-1937.
- Fred, R.G. and Welsh, N. 2009. The importance of RNA binding proteins in preproinsulin mRNA stability. Mol. Cell. Endocrinol. 297: 28-33.
- 7. Percipalle, P., Raju, C.S. and Fukuda, N. 2009. Actin-associated hnRNP proteins as transacting factors in the control of mRNA transport and localization. RNA Biol. 6: 171-174.

## CHROMOSOMAL LOCATION

Genetic locus: HNRNPA1L2 (human) mapping to 13q14.3.

# **PRODUCT**

HNRNPA1L2 siRNA (h) is a target-specific 19-25 nt siRNA 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 HNRNPA1L2 shRNA Plasmid (h): sc-106523-SH and HNRNPA1L2 shRNA (h) Lentiviral Particles: sc-106523-V as alternate gene silencing products.

# **PROTOCOLS**

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

#### STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20 $^{\circ}$  C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20 $^{\circ}$  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**

HNRNPA1L2 siRNA (h) is recommended for the inhibition of HNRNPA1L2 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 HNRNPA1L2 gene expression knockdown using RT-PCR Primer: HNRNPA1L2 (h)-PR: sc-106523-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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com