

Snrp116 siRNA (m): sc-153659

BACKGROUND

Spliceosomes are multi-protein complexes that are composed of snRNPs (small nuclear ribonucleoproteins) and a variety of associated protein factors, all of which work in concert to regulate the splicing of pre-mRNA. Snrp116, also known as EFTUD2 (elongation factor Tu GTP binding domain containing 2) or Snu114, is a 972 amino acid protein that localizes to the nucleus and belongs to the GTP-binding elongation factor family. Existing as a component of the multi-protein U5 snRNP spliceosome complex, Snrp116 plays an important role in pre-mRNA splicing, as well as in the recycling of spliceosomal snRNPs. The gene encoding Snrp116 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

1. Nomura, N., et al. 1994. Prediction of the coding sequences of unidentified human genes. I. The coding sequences of 40 new genes (KIAA0001-KIAA0040) deduced by analysis of randomly sampled cDNA clones from human immature myeloid cell line KG-1. *DNA Res.* 1: 27-35.
2. Fabrizio, P., et al. 1997. An evolutionarily conserved U5 snRNP-specific protein is a GTP-binding factor closely related to the ribosomal translocase EF-2. *EMBO J.* 16: 4092-4106.
3. Nagai, K., et al. 2001. Structure and assembly of the spliceosomal snRNPs. Novartis Medal Lecture. *Biochem. Soc. Trans.* 29: 15-26.
4. Zhou, Z., et al. 2002. Comprehensive proteomic analysis of the human spliceosome. *Nature* 419: 182-185.
5. Jurica, M.S., et al. 2002. Purification and characterization of native spliceosomes suitable for three-dimensional structural analysis. *RNA* 8: 426-439.

CHROMOSOMAL LOCATION

Genetic locus: Eftud2 (mouse) mapping to 11 E1.

PRODUCT

Snrp116 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Snrp116 shRNA Plasmid (m): sc-153659-SH and Snrp116 shRNA (m) Lentiviral Particles: sc-153659-V as alternate gene silencing products.

For independent verification of Snrp116 (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-153659A, sc-153659B and sc-153659C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Snrp116 siRNA (m) is recommended for the inhibition of Snrp116 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 μ M in 66 μ 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 Snrp116 gene expression knockdown using RT-PCR Primer: Snrp116 (m)-PR: sc-153659-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.