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SANTA CRUZ BIOTECHNOLOGY, INC.

U11/U12 snRNP 35K siRNA (m): sc-154832

BACKGROUND

Small nuclear ribonucleoproteins, also known as snRNPs, combine with other proteins to form spliceosomes, a complex that catalyzes pre-mRNA splicing. There are two types of spliceosomes: U2 and U12. The U2-type spliceosome is found in all eukaryotes and excises U2-type introns, which account for the majority of pre-mRNA introns. The U12-type spliceosome removes U12-type introns, which comprise less than 1% of all human introns. The U12-type spliceosome is comprised of the U11 and U12 snRNPs as well as the U4/U6.U5 tri-snRNP. U11 and U12 bind as a U11/U12 di-snRNP complex, which recognizes the 5' splice site of the pre-mRNA during the first steps of U12-type spliceosome formation. U11/U12 snRNPs contain several proteins, including seven that are unique to the U11/U12snRNP: 65K, 59K, 48K, 35K, 31K, 25K and 20K. U11/U12 snRNP 35K is a 246 amino acid protein localized to the nucleus, and it contains a motif known to mediate RNA binding. Two named isoforms of this protein exist as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Snrnp35 (mouse) mapping to 5 F.

PRODUCT

U11/U12 snRNP 35K 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 U11/U12 snRNP 35K shRNA Plasmid (m): sc-154832-SH and U11/U12 snRNP 35K shRNA (m) Lentiviral Particles: sc-154832-V as alternate gene silencing products.

For independent verification of U11/U12 snRNP 35K (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-154832A, sc-154832B and sc-154832C.

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

U11/U12 snRNP 35K siRNA (m) is recommended for the inhibition of U11/U12 snRNP 35K 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 U11/U12 snRNP 35K gene expression knockdown using RT-PCR Primer: U11/U12 snRNP 35K (m)-PR: sc-154832-PR (20 µl). 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 for detailed protocols and support products.