SANTA CRUZ BIOTECHNOLOGY, INC.

ZRSR2 siRNA (h): sc-90951

BACKGROUND

The removal of introns from a transcribed pre-mRNA segment is facilitated by a complex known as the spliceosome. Spliceosome assembly is initiated by the binding of U1 small nuclear ribonucleoprotein particle (U1 SnRNP) to the 5' splice site and the U2 SnRNP auxiliary factor (U2AF) to the pyrimidine tract. ZRSR2, also known as U2 small nuclear ribonucleoprotein auxiliary factor 35 kDa subunit-related protein 2 (U2AF1RS2), U2AF01RS2 or U2AF1L2, is a 482 amino acid protein that is related to U2AF35. ZRSR2 has been shown to interact with U2AF65 and SR proteins in the splicing of pre-mRNA. Localized to the nucleus, ZRSR2 contains two C3H1-type zinc fingers and one RNA recognition motif (RRM) domain, a 90 amino acid region that is responsible for RNA-binding.

REFERENCES

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4. Wu, S., et al. 1999. Functional recognition of the 3' splice site AG by the splicing factor U2AF35. Nature 402: 832-835.
5. Guth, S., et al. 2001. Dual function for U2AF(35) in AG-dependent pre-mRNA splicing. Mol. Cell. Biol. 21: 7673-7681.
6. Graveley, B.R., et al. 2001. The role of U2AF35 and U2AF65 in enhancer-dependent splicing. RNA 7: 806-818.
7. Lützelberger, M., et al. 2005. Substrate-dependent differences in U2AF requirement for splicing in adenovirus-infected cell extracts. J. Biol. Chem. 280: 25478-25484.
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CHROMOSOMAL LOCATION

Genetic locus: ZRSR2 (human) mapping to Xp22.2.

PRODUCT

ZRSR2 siRNA (h) 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 ZRSR2 shRNA Plasmid (h): sc-90951-SH and ZRSR2 shRNA (h) Lentiviral Particles: sc-90951-V as alternate gene silencing products.

For independent verification of ZRSR2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-90951A, sc-90951B and sc-90951C.

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

ZRSR2 siRNA (h) is recommended for the inhibition of ZRSR2 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 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 ZRSR2 gene expression knockdown using RT-PCR Primer: ZRSR2 (h)-PR: sc-90951-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.