ISLR siRNA (m): sc-146298



The Power to Questio

BACKGROUND

The leucine-rich repeat (LRR) is a 20-30 amino acid motif that forms a hydrophobic α/β horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRRs contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. ISLR (immunoglobulin superfamily containing leucine-rich repeat) is a 428 amino acid secreted protein that contains one lg-like domain and six LRRs and is expressed in a variety of tissues, including ovary, heart, thyroid, testis, prostate and spinal cord. Via its lg and LRR domains, ISLR is thought to play a role in adhesion or binding to other proteins at the cell surface.

REFERENCES

- 1. Kobe, B. and Deisenhofer, J. 1994. The leucine-rich repeat: a versatile binding motif. Trends Biochem. Sci. 19: 415-421.
- 2. Kobe, B. and Deisenhofer, J. 1995. Proteins with leucine-rich repeats. Curr. Opin. Struct. Biol. 5: 409-416.
- Nagasawa, A., Kubota, R., Imamura, Y., Nagamine, K., Wang, Y., Asakawa, S., Kudoh, J., Minoshima, S., Mashima, Y., Oguchi, Y. and Shimizu, N. 1997. Cloning of the cDNA for a new member of the immunoglobulin superfamily (ISLR) containing leucine-rich repeat (LRR). Genomics 44: 273-279.
- Online Mendelian Inheritance in Man, OMIM™. 19997. Johns Hopkins University, Baltimore, MD. MIM Number: 602059. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Nagasawa, A., Kudoh, J., Noda, S., Mashima, Y., Wright, A., Oguchi, Y. and Shimizu, N. 1999. Human and mouse ISLR (immunoglobulin superfamily containing leucine-rich repeat) genes: genomic structure and tissue expression. Genomics 61: 37-43.
- 6. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. Curr. Opin. Struct. Biol. 11: 725-732.
- 7. Homma, S., Shimada, T., Hikake, T. and Yaginuma, H. 2009. Expression pattern of LRR and Ig domain-containing protein (LRRIG protein) in the early mouse embryo. Gene Expr. Patterns 9: 1-26.

CHROMOSOMAL LOCATION

Genetic locus: Islr (mouse) mapping to 9 B.

PRODUCT

ISLR siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ISLR shRNA Plasmid (m): sc-146298-SH and ISLR shRNA (m) Lentiviral Particles: sc-146298-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° 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

ISLR siRNA (m) is recommended for the inhibition of ISLR 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 ISLR gene expression knockdown using RT-PCR Primer: ISLR (m)-PR: sc-146298-PR (20 μ 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