SANTA CRUZ BIOTECHNOLOGY, INC.

ISLR2 siRNA (m): sc-146299

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. ISLR2 (immunoglobulin superfamily containing leucine-rich repeat 2), also known as LINX (leucine-rich repeat domain and immunoglobulin domain-containing axon extension protein), is a 745 amino acid single-pass membrane protein that contains five LRRs, one Ig-like (immunoglobulin-like) domain, a LRRCT domain and one LRRNT domain. ISLR2 exists as a homomultimer and is essential for axon extension during neural development. The gene encoding ISLR2 maps to human chromosome 15q24.1.

REFERENCES

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3. 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.
4. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. Curr. Opin. Struct. Biol. 11: 725-732.
5. Matsushima, N., Tachi, N., Kuroki, Y., Enkhbayar, P., Osaki, M., Kamiya, M. and Kretsinger, R.H. 2005. Structural analysis of leucine-rich-repeat variants in proteins associated with human diseases. Cell. Mol. Life Sci. 62: 2771-2791.
6. Bella, J., Hindle, K.L., McEwan, P.A. and Lovell, S.C. 2008. The leucine-rich repeat structure. Cell. Mol. Life Sci. 65: 2307-2333.

CHROMOSOMAL LOCATION

Genetic locus: Islr2 (mouse) mapping to 9 B.

PRODUCT

ISLR2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ISLR2 shRNA Plasmid (m): sc-146299-SH and ISLR2 shRNA (m) Lentiviral Particles: sc-146299-V as alternate gene silencing products.

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 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

ISLR2 siRNA (m) is recommended for the inhibition of ISLR2 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 ISLR2 gene expression knockdown using RT-PCR Primer: ISLR2 (m)-PR: sc-146299-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.