SANTA CRUZ BIOTECHNOLOGY, INC.

LRRC1 siRNA (m): sc-149051

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The Power to Question

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. The primary function of these motifs is to provide a versatile structural framework to mediate the formation of protein-protein interactions. LRRs are present in a variety of proteins with diverse structure and function, including innate immunity and nervous system development. LRRC1 (leucine-rich repeat-containing protein 1), also known as LANO adapter protein or LAP and no PDZ protein, is a 524 amino acid protein that contains 17 LRRs. Localized to the cytoplasm and the membrane, LRRC1 is expressed strongly in placenta and testis, with lower levels found in heart, kidney, thyroid, lung, prostate, colon and trachea. LRRC1 interacts with PSD-95 and SAP 97, and may form a complex with SAP 97 and ERBIN. LRRC1 is expressed as two isoforms produced by alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Lrrc1 (mouse) mapping to 9 D.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

LRRC1 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 LRRC1 shRNA Plasmid (m): sc-149051-SH and LRRC1 shRNA (m) Lentiviral Particles: sc-149051-V as alternate gene silencing products.

For independent verification of LRRC1 (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-149051A, sc-149051B and sc-149051C.

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

LRRC1 siRNA (m) is recommended for the inhibition of LRRC1 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 LRRC1 gene expression knockdown using RT-PCR Primer: LRRC1 (m)-PR: sc-149051-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.