SANTA CRUZ BIOTECHNOLOGY, INC.

4933421E11Rik siRNA (m): sc-140301

BACKGROUND

4933421E11Rik, also known as Lrif1 (ligand-dependent nuclear receptor-interacting factor 1), is a 755 amino acid nuclear matrix protein that belongs to the LRIF1 family. 4933421E11Rik interacts with retinoic acid receptor α (RARA) and represses its ligand-induced transcriptional activity. The repression of RARA activity may occur through direct recruitment of histone deacetylases. Existing as two alternatively spliced isoforms, 4933421E11Rik is encoded by a gene that maps to mouse chromosome 3 F2.3. The human homolog of 4933421E11Rik is known as LRIF1 (ligand-dependent nuclear receptor-interacting factor 1). LRIF1 is a 769 amino acid widely expressed protein, with the highest expression levels in heart, liver and placenta.

REFERENCES

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2. Li, H.J., et al. 2007. RIF-1, a novel nuclear receptor corepressor that associates with the nuclear matrix. J. Cell. Biochem. 102: 1021-1035.
3. Rassi, D.M., et al. 2008. Gene expression profiles stratified according to type 1 diabetes mellitus susceptibility regions. Ann. N.Y. Acad. Sci. 1150: 282-289.
4. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. Neurobiol. Dis. 31: 309-315.
5. Yokoi, T., et al. 2009. Analysis of the vitreous membrane in a case of type 1 Stickler syndrome. Graefes Arch. Clin. Exp. Ophthalmol. 247: 715-718.
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CHROMOSOMAL LOCATION

Genetic locus: Lrif1 (mouse) mapping to 3 F2.3.

PRODUCT

4933421E11Rik 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 4933421E11Rik shRNA Plasmid (m): sc-140301-SH and 4933421E11Rik shRNA (m) Lentiviral Particles: sc-140301-V as alternate gene silencing products.

For independent verification of 4933421E11Rik (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-140301A, sc-140301B and sc-140301C.

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

4933421E11Rik siRNA (m) is recommended for the inhibition of 4933421E11Rik 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 4933421E11Rik gene expression knockdown using RT-PCR Primer: 4933421E11Rik (m)-PR: sc-140301-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.