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SANTA CRUZ BIOTECHNOLOGY, INC.

# LPPR3 siRNA (m): sc-149026

## BACKGROUND

Phosphatidate phosphatases are a family of integral membrane glycoproteins that dephosphorylate a variety of lipid phosphates and play a role in signal transduction via the phospholipase D pathway. PAP-2 proteins function independently of $Mg^{2+}$ and are insensitive to NEM (N-ethylmaleimide) inhibition. The lipid phosphates degraded by this family include ceramide 1-phosphate (C1P), sphingosine 1-phosphate (S1P), phosphatidic acid (PA) and lysophosphatidic acid (LPA). LPPR3 (Lipid phosphate phosphatase-related protein type 3), also known as PRG2 (Plasticity-related gene 2 protein) or PHP2 (PAP-2-like protein 2), is a 718 amino acid multi-pass membrane protein that mediates lipid phosphate phosphatase activity by catalyzing the conversion of 1,2-diacylglycerol 3-phosphate to 1,2-diacyl-sn-glycerol and phosphate. There are four isoforms of LPPR3 that are produced as a result of alternative splicing events.

## REFERENCES


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4. Tanic, N., Brkic, G., Dimitrijevic, B., Dedovic-Tanic, N., Gefen, N., Benharroch, D. and Gopas, J. 2006. Identification of differentially expressed mRNA transcripts in drug-resistant versus parental human melanoma cell lines. Anticancer Res. 26: 2137-2142.
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## CHROMOSOMAL LOCATION

Genetic locus: BC005764 (mouse) mapping to 10 C1.

## PROTOCOLS

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

## PRODUCT

LPPR3 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 LPPR3 shRNA Plasmid (m): sc-149026-SH and LPPR3 shRNA (m) Lentiviral Particles: sc-149026-V as alternate gene silencing products.

For independent verification of LPPR3 (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-149026A, sc-149026B and sc-149026C.

## 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

LPPR3 siRNA (m) is recommended for the inhibition of LPPR3 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 LPPR3 gene expression knockdown using RT-PCR Primer: LPPR3 (m)-PR: sc-149026-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.