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# PPIL5 siRNA (m): sc-152412

## BACKGROUND

Cyclophilins are conserved, ubiquitous and abundant cytosolic peptidylprolyl *cis-trans* isomerases that accelerate the isomerization of XaaPro peptide bonds and the refolding of proteins. PPIL5 (peptidylprolyl isomerase (cyclophilin)-like 5), also known as LRR-repeat protein 1 (LRR-1) or 4-1BB-mediated-signaling molecule (4-1BBlrr), is a 414 amino acid protein involved in protein modification and ubiquitination. PPIL5 has been found to negatively regulate CD137-mediated signaling cascades by interacting with the cytoplasmic domain of CD137 (also known as 4-1BB), which leads to activation of JNK1 and NF $\kappa$ B. While ubiquitously expressed, highest expression of PPIL5 is found in skeletal muscle and heart. PPIL5 contains five LRR (leucine-rich repeats), and exists as two alternatively spliced isoforms. The gene encoding PPIL5 maps to human chromosome 14q22.1.

## REFERENCES

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2. Jang, L.K., Lee, Z.H., Kim, H.H., Hill, J.M., Kim, J.D. and Kwon, B.S. 2001. A novel leucine-rich repeat protein (LRR-1): potential involvement in 4-1BB-mediated signal transduction. *Mol. Cells* 12: 304-312.
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## CHROMOSOMAL LOCATION

Genetic locus: *Lrr1* (mouse) mapping to 12 C2.

## PRODUCT

PPIL5 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PPIL5 shRNA Plasmid (m): sc-152412-SH and PPIL5 shRNA (m) Lentiviral Particles: sc-152412-V as alternate gene silencing products.

For independent verification of PPIL5 (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-152412A, sc-152412B and sc-152412C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

PPIL5 siRNA (m) is recommended for the inhibition of PPIL5 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  $\mu$ M in 66  $\mu$ l. 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 PPIL5 gene expression knockdown using RT-PCR Primer: PPIL5 (m)-PR: sc-152412-PR (20  $\mu$ 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.