

# Polycystin-1L2 siRNA (h): sc-93058

## BACKGROUND

Polycystin-1L2, also known as PKD1L2 or PC1L2, is a 2,459 amino acid multi-pass membrane protein that belongs to the Polycystin family. Expressed in a variety of tissues, including placenta, brain, liver, lung, testis, skeletal muscle and fetal and adult heart, Polycystin-1L2 is thought to function as an ion-channel regulator and may also exhibit activity as a G protein-coupled receptor. Polycystin-1L2 contains a latrophilin/CL-1-like GPCR proteolytic site (GPS) domain, a Polycystin-1, lipoxigenase,  $\alpha$ -toxin (PLAT) domain and several transmembrane domains through which it conveys its regulatory function. Human Polycystin-1L2 shares 73% sequence similarity with its mouse counterpart, suggesting a conserved role between species. Defects in the gene encoding Polycystin-1L2 may be associated with Polycystic kidney disease, a progressive disorder characterized by the presence of cysts in the kidneys. Seven isoforms of Polycystin-1L2 exist due to alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PKD1L2 (human) mapping to 16q23.2.

## 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.

## PRODUCT

Polycystin-1L2 siRNA (h) 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 Polycystin-1L2 shRNA Plasmid (h): sc-93058-SH and Polycystin-1L2 shRNA (h) Lentiviral Particles: sc-93058-V as alternate gene silencing products.

For independent verification of Polycystin-1L2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-93058A, sc-93058B and sc-93058C.

## 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

Polycystin-1L2 siRNA (h) is recommended for the inhibition of Polycystin-1L2 expression in human 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 Polycystin-1L2 gene expression knockdown using RT-PCR Primer: Polycystin-1L2 (h)-PR: sc-93058-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.