



## LPRP siRNA (h): sc-95971

### BACKGROUND

LPRP (lacrimal proline-rich protein), also known as PRR4 (proline rich 4), PRL4 or nasopharyngeal carcinoma-associated proline-rich protein 4, is a 134 amino acid secreted protein that is highly expressed in acinar cells of the lacrimal gland, but not intralobular ducts. LPRP is also found in parotid, sublingual and submandibular glands. Thought to play a role in protection of the eye via regulation of microflora, LPRP is a putative marker for lacrimal gland acinar cell function. The gene encoding LPRP maps to human chromosome 12p13.2, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: PRR4 (human) mapping to 12p13.2.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PRODUCT

LPRP siRNA (h) is a pool of 2 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 LPRP shRNA Plasmid (h): sc-95971-SH and LPRP shRNA (h) Lentiviral Particles: sc-95971-V as alternate gene silencing products.

For independent verification of LPRP (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-95971A and sc-95971B.

### 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

LPRP siRNA (h) is recommended for the inhibition of LPRP 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 LPRP gene expression knockdown using RT-PCR Primer: LPRP (h)-PR: sc-95971-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

### PROTOCOLS

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