

# LEPREL2 siRNA (m): sc-146709

## BACKGROUND

LEPREL2 (leprecan-like protein 2), also known as P3H3 (prolyl 3-hydroxylase 3) or protein B, is a 736 amino acid protein belonging to the leprecan family, a family of collagen prolyl hydroxylases required for proper collagen biosynthesis, folding and assembly. LEPREL2 contains one Fe2OG dioxygenase domain and four TPR repeats. LEPREL2 has prolyl 3-hydroxylase activity catalyzing the post-translational formation of 3-hydroxyproline in -Xaa-Pro-Gly-sequences in collagens, especially types IV and V. Localized in the endoplasmic reticulum, LEPREL2 is weakly expressed in heart, lung, ovary and skeletal muscle. Two isoforms of LEPREL2 are produced by alternative splicing events. The gene encoding LEPREL2 maps to human chromosome 12p13.31 and mouse chromosome 6 F2.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Leprel2 (mouse) mapping to 6 F2.

## PRODUCT

LEPREL2 siRNA (m) is a target-specific 19-25 nt siRNA 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 LEPREL2 shRNA Plasmid (m): sc-146709-SH and LEPREL2 shRNA (m) Lentiviral Particles: sc-146709-V as alternate gene silencing 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  $\mu$ 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

LEPREL2 siRNA (m) is recommended for the inhibition of LEPREL2 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 LEPREL2 gene expression knockdown using RT-PCR Primer: LEPREL2 (m)-PR: sc-146709-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.