

# LPP siRNA (m): sc-45970

## BACKGROUND

The Zyxin family of proteins contains five members: Ajuba, Limd1, LPP, TRIP6 and Zyxin. LPP (LIM-containing lipoma-preferred partner), a LIM domain-containing scaffolding protein contains three LIM domains at its carboxy terminus, which are preceded by a proline-rich pre-LIM region containing a number of protein interaction domains. LPP localizes to sites of cell adhesion, such as focal adhesions and cell-cell contacts, and shuttles to the nucleus where it has transcriptional activation capacity. The human LPP gene maps to chromosomal location 3q28, and preferentially translocates to the HMGIC gene in a subclass of human benign mesenchymal tumors known as lipomas.

## REFERENCES

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3. Petit, M.M., et al. 2000. LPP, an Actin cytoskeleton protein related to Zyxin, harbors a nuclear export signal and transcriptional activation capacity. *Mol. Biol. Cell* 11: 117-129.
4. Daheron, L., et al. 2001. Human LPP gene is fused to MLL in a secondary acute leukemia with a t(3;11) (q28;q23). *Genes Chromosomes Cancer* 31: 382-389.
5. Petit, M.M., et al. 2003. The focal adhesion and nuclear targeting capacity of the LIM-containing lipoma-preferred partner (LPP) protein. *J. Biol. Chem.* 278: 2157-2168.
6. Gorenne, I., et al. 2003. LPP, a LIM protein highly expressed in smooth muscle. *Am. J. Physiol., Cell Physiol.* 285: C674-C685.
7. Li, B., et al. 2003. The lipoma-preferred partner (LPP) interacts with  $\alpha$ -actinin. *J. Cell Sci.* 116: 1359-1366.
8. Petit, M.M., et al. 2005. The tumor suppressor Scrib interacts with the Zyxin-related protein LPP, which shuttles between cell adhesion sites and the nucleus. *BMC Cell Biol.* 6: 1.

## CHROMOSOMAL LOCATION

Genetic locus: Lpp (mouse) mapping to 16 B1.

## PRODUCT

LPP 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 LPP shRNA Plasmid (m): sc-45970-SH and LPP shRNA (m) Lentiviral Particles: sc-45970-V as alternate gene silencing products.

For independent verification of LPP (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-45970A, sc-45970B and sc-45970C.

## 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

LPP siRNA (m) is recommended for the inhibition of LPP 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.

## GENE EXPRESSION MONITORING

LPP (8B3A11): sc-101434 is recommended as a control antibody for monitoring of LPP gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor LPP gene expression knockdown using RT-PCR Primer: LPP (m)-PR: sc-45970-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.