

LYPD3 siRNA (m): sc-149176

BACKGROUND

LYPD3 (LY6/PLAUR domain containing 3), also known as MIG-C4 (matrigel-induced gene C4 protein) or GPI-anchored metastasis-associated protein C4.4A homolog, is a 346 amino acid cell membrane protein that supports cell migration. Implicated in tumor progression and urothelial cell-matrix interactions, LYPD3 is expressed in skin, urothelium and placenta, with weak levels found in peripheral blood mononuclear cells and esophagus. Upregulated in migrating keratinocytes, LYPD3 undergoes post-translational N- and O-glycosylation, and contains two UPAR/Ly6 domains. The gene encoding LYPD3 maps to human chromosome 19q13.31. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families, and Fc receptors (FcRs).

REFERENCES

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2. Wang, L., et al. 2000. C-CAM1, a candidate tumor suppressor gene, is abnormally expressed in primary lung cancers. *Clin. Cancer Res.* 6: 2988-2993.
3. Smith, B.A., et al. 2001. Identification of genes involved in human urothelial cell-matrix interactions: implications for the progression pathways of malignant urothelium. *Cancer Res.* 61: 1678-1685.
4. Würfel, J., et al. 2001. Cloning of the human homologue of the metastasis-associated rat C4.4A. *Gene* 262: 35-41.
5. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. *Immunol. Rev.* 181: 20-38.
6. Fletcher, G.C., et al. 2003. hAG-2 and hAG-3, human homologues of genes involved in differentiation, are associated with oestrogen receptor-positive breast tumours and interact with metastasis gene C4.4a and dystroglycan. *Br. J. Cancer* 88: 579-585.

CHROMOSOMAL LOCATION

Genetic locus: Lypd3 (mouse) mapping to 7 A3.

PRODUCT

LYPD3 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LYPD3 shRNA Plasmid (m): sc-149176-SH and LYPD3 shRNA (m) Lentiviral Particles: sc-149176-V as alternate gene silencing products.

For independent verification of LYPD3 (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-149176A, sc-149176B and sc-149176C.

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

APPLICATIONS

LYPD3 siRNA (m) is recommended for the inhibition of LYPD3 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 μ M in 66 μ 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 LYPD3 gene expression knockdown using RT-PCR Primer: LYPD3 (m)-PR: sc-149176-PR (20 μ 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 for detailed protocols and support products.