Lipocalin-13 siRNA (m): sc-146747



The Power to Question

BACKGROUND

The Lipocalin family is composed of structurally conserved hydrophobic ligand-binding proteins which are represented in all major taxonomic groups from prokaryotes to primates. Members of the Lipocalin family are characterized by several common molecular-recognition properties: the ability to bind a range of small hydrophobic molecules, binding to specific cell-surface receptors and the formation of complexes with soluble macromolecules. Lipocalin-13 (Lcn13), is a 176 amino acid secreted protein that is expressed specifically in epididymis where it acts as a retinoid carrier protein and is thought to be involved in male fertility. A member of the Lipocalin family and calycin superfamily, Lipocalin-13 is encoded by a gene that maps to murine chromosome 2 A3.

REFERENCES

- 1. Flower, D.R. 1995. Multiple molecular recognition properties of the lipocalin protein family. J. Mol. Recognit. 8: 185-195.
- Flower, D.R. 1996. The lipocalin protein family: structure and function. Biochem. J. 318: 1-14.
- Salier, J.P. 2000. Chromosomal location, exon/intron organization and evolution of lipocalin genes. Biochim. Biophys. Acta 1482: 25-34.
- 4. Bratt, T. 2000. Lipocalins and cancer. Biochim. Biophys. Acta 1482: 318-326.
- 5. Suzuki, K., Lareyre, J.J., Sánchez, D., Gutierrez, G., Araki, Y., Matusik, R.J. and Orgebin-Crist, M.C. 2004. Molecular evolution of epididymal lipocalin genes localized on mouse chromosome 2. Gene 339: 49-59.
- 6. Grzyb, J., Latowski, D. and Strzałka, K. 2006. Lipocalins-a family portrait. J. Plant Physiol. 163: 895-915.
- 7. Suzuki, K., Yu, X., Chaurand, P., Araki, Y., Lareyre, J.J., Caprioli, R.M., Orgebin-Crist, M.C. and Matusik, R.J. 2007. Epididymis-specific lipocalin promoters. Asian J. Androl. 9: 515-521.
- 8. Cho, K.W., Zhou, Y., Sheng, L. and Rui, L. 2011. Lipocalin-13 regulates glucose metabolism by both Insulin-dependent and Insulin-independent mechanisms. Mol. Cell. Biol. 31: 450-457.

CHROMOSOMAL LOCATION

Genetic locus: Lcn13 (mouse) mapping to 2 A3.

PRODUCT

Lipocalin-13 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Lipocalin-13 shRNA Plasmid (m): sc-146747-SH and Lipocalin-13 shRNA (m) Lentiviral Particles: sc-146747-V as alternate gene silencing products.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support 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 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

Lipocalin-13 siRNA (m) is recommended for the inhibition of Lipocalin-13 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 µM in 66 µl. 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 Lipocalin-13 gene expression knockdown using RT-PCR Primer: Lipocalin-13 (m)-PR: sc-146747-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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com