

TINAGL1 siRNA (m): sc-154276

BACKGROUND

TINAGL1 (tubulointerstitial nephritis antigen-like 1), also known as ARG1, LCN7, LIECG3 or TINAGRP, is a 467 amino acid secreted protein that belongs to the peptidase C1 family. TINAGL1 is highly expressed in aorta, heart, placenta and kidney, and moderately expressed in skeletal muscle, pancreas, lung, lymph nodes, adrenal gland, bone marrow and thyroid. Involved in the adrenocortical zonation, TINAGL1 may also play a role in repressing the CYP11B gene expression in adrenocortical cells. Considered a matricellular protein, TINAGL1 interacts with both structural matrix proteins and cell surface receptors. TINAGL1 is a novel component of the Reichert membrane that interacts with laminin-1. It is suggested that TINAGL1 is involved in embryo development during postimplantation. Two isoforms of TINAGL1 exists due to alternative splicing events.

REFERENCES

1. Nelson, T.R., et al. 1995. Identification of a cDNA encoding tubulointerstitial nephritis antigen. *J. Biol. Chem.* 270: 16265-16270.
2. Kanwar, Y.S., et al. 1999. Tubulointerstitial nephritis antigen: an extracellular matrix protein that selectively regulates tubulogenesis vs. glomerulogenesis during mammalian renal development. *Proc. Natl. Acad. Sci. USA* 96: 11323-11328.
3. Ikeda, M., et al. 2000. Molecular cloning, expression, and chromosomal localization of a human tubulointerstitial nephritis antigen. *Biochem. Biophys. Res. Commun.* 268: 225-230.
4. Brömme, N.C., et al. 2000. Cloning, characterization, and expression of the human TIN-ag-RP gene encoding a novel putative extracellular matrix protein. *Biochem. Biophys. Res. Commun.* 271: 474-480.

CHROMOSOMAL LOCATION

Genetic locus: Tinagl (mouse) mapping to 4 D2.2.

PRODUCT

TINAGL1 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TINAGL1 shRNA Plasmid (m): sc-154276-SH and TINAGL1 shRNA (m) Lentiviral Particles: sc-154276-V as alternate gene silencing products.

For independent verification of TINAGL1 (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-154276A and sc-154276B.

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

TINAGL1 siRNA (m) is recommended for the inhibition of TINAGL1 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 TINAGL1 gene expression knockdown using RT-PCR Primer: TINAGL1 (m)-PR: sc-154276-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.