SANTA CRUZ BIOTECHNOLOGY, INC.

TIN-Ag siRNA (h): sc-95228

BACKGROUND

TIN-Ag (tubulointerstitial nephritis antigen), also known as TIN1 or TIN2, is a 476 amino acid secreted protein that contains one SMB (somatomedin-B) domain and localizes to the extracellular matrix. Expressed during development in corneal tissue, kidney cortex and small intestine, TIN-Ag is a basement membrane glycoprotein that interacts with Integrin α3 and Integrin α5 and, via this interaction, mediates the adhesion of proximal tubule epithelial cells. Additionally, TIN-Ag is thought to play a role in the regulation of telomere length, possibly stabilizing the TRF2 (telomeric repeat binding factor 2) complex that is responsible for telomere elongation. Antibodies against TIN-Ag are present in the sera of tubulointerstitial nephritis-affected patients, suggesting a role for TIN-Ag in the pathogenesis of tubulointerstitial nephritis. Two isoforms of TIN-Ag are expressed due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TINAG (human) mapping to 6p12.1.

PRODUCT

TIN-Ag siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TIN-Ag shRNA Plasmid (h): sc-95228-SH and TIN-Ag shRNA (h) Lentiviral Particles: sc-95228-V as alternate gene silencing products.

For independent verification of TIN-Ag (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-95228A, sc-95228B and sc-95228C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TIN-Ag siRNA (h) is recommended for the inhibition of TIN-Ag expression in human 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 TIN-Ag gene expression knockdown using RT-PCR Primer: TIN-Ag (h)-PR: sc-95228-PR (20 µl). 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.