SANTA CRUZ BIOTECHNOLOGY, INC.

LST1 siRNA (m): sc-149136

BACKGROUND

LST1 (leukocyte-specific transcript 1), also known as B144, is a 97 amino acid protein single-pass membrane protein. LST1 may play a role in modulating immune responses, as well as dendritic cell maturation. LST1 has also been found to induce morphological changes, including microspikes and filopodia, when overexpressed in a variety of cell types. Localized to the endomembrane system, LST1 is expressed as nine isoforms produced by alternative splicing. Isoform 1, also designated LST1A, and isoform 2, also designated LST1C, have inhibitory effects on lymphocyte proliferation. Induced by IFN-γ, LST1 is expressed in adult lung, thymus, placenta, kidney and tonsil and fetal liver, spleen and brain.

REFERENCES

1. Neville, M.J. and Campbell, R.D. 1997. Alternative splicing of the LST1 gene located in the major histocompatibility complex on human chromosome 6. DNA Seq. 8: 155-160.
2. de Baey, A., et al. 1997. Complex expression pattern of the TNF region gene LST1 through differential regulation, initiation, and alternative splicing. Genomics 45: 591-600.
3. Yu, X. and Weissman, S.M. 2000. Characterization of the promoter of human leukocyte-specific transcript 1. A small gene with a complex pattern of alternative transcripts. J. Biol. Chem. 275: 34597-34608.
4. Rollinger-Holzinger, I., et al. 2000. LST1: a gene with extensive alternative splicing and immunomodulatory function. J. Immunol. 164: 3169-3176.
5. Raghunathan, A., et al. 2001. Functional analysis of B144/LST1: a gene in the tumor necrosis factor cluster that induces formation of long filopodia in eukaryotic cells. Exp. Cell Res. 268: 230-244.

CHROMOSOMAL LOCATION

Genetic locus: Lst1 (mouse) mapping to 17 B1.

PRODUCT

LST1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LST1 shRNA Plasmid (m): sc-149136-SH and LST1 shRNA (m) Lentiviral Particles: sc-149136-V as alternate gene silencing 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 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

LST1 siRNA (m) is recommended for the inhibition of LST1 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 LST1 gene expression knockdown using RT-PCR Primer: LST1 (m)-PR: sc-149136-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.

PROTOCOLS

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