SANTA CRUZ BIOTECHNOLOGY, INC.

Ly6G5c siRNA (h): sc-95598

BACKGROUND

Members of the lymphocyte antigen 6 superfamily are cysteine-rich and are usually GPI-anchored cell surface proteins having immunologic roles. Most hematopoietic cells express one or more members of the Ly-6 superfamily. Well-studied members of this family include CD59, an inhibitor of the complement cascade, uPAR, which is involved in proteolysis of extracellular matrix proteins, and Lynx-1, a modulator of nictonic acetylcholine receptors. Ly6G5c (lymphocyte antigen 6 complex locus protein G5c) is a 150 amino acid secreted protein that contains one UPAR/Ly6 domain, which is about 80 proteins long and has a conserved pattern of eight to ten cysteine residues. Ly6G5c is expressed in T-cell lines of fetal and adult lung and may play a role in hematopoietic cell differentiation. The gene encoding Ly6G5b maps within the human major histocompatibility complex class III region on chromosome 6p21.3. There are two isoforms of Ly6G5c that are produced as a result of alternative splicing events.

REFERENCES

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7. James, I., et al. 2009. Missingness in the T1DGC MHC fine-mapping SNP data: association with HLA genotype and potential influence on genetic association studies. Diabetes Obes. Metab. 11: 101-107.
8. Blanco, A.M., et al. 2009. A FRET-based assay for characterization of alternative splicing events using peptide nucleic acid fluorescence *in situ* hybridization. Nucleic Acids Res. 37: e116.
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CHROMOSOMAL LOCATION

Genetic locus: LY6G5C (human) mapping to 6p21.33.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Ly6G5c siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ly6G5c shRNA Plasmid (h): sc-95598-SH and Ly6G5c shRNA (h) Lentiviral Particles: sc-95598-V as alternate gene silencing products.

For independent verification of Ly6G5c (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-95598A and sc-95598B.

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

Ly6G5c siRNA (h) is recommended for the inhibition of Ly6G5c 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 Ly6G5c gene expression knockdown using RT-PCR Primer: Ly6G5c (h)-PR: sc-95598-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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