SANTA CRUZ BIOTECHNOLOGY, INC.

Ly-6H siRNA (m): sc-149160

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Ly-6 (Lymphocyte antigen 6) alloantigens represent a family of phosphatidylinositol-anchored proteins that play a role in the process of T lymphocyte activation. Ly-6 family members share amino acid homology throughout a distinctive cysteine rich protein domain that incorporates O-linked carbohydrates. During hematopoiesis, murine Ly-6 molecules have unique patterns of tissue expression, from multipotential stem cells to lineage committed precursor cells, and on specific leukocyte subpopulations in the peripheral lymphoid tissues. Ly-6H (Lymphocyte antigen 6H), also known as NMLY6, is a 140 amino acid lipid-anchored membrane protein that belongs to the Ly-6 family. Highly expressed in brain with lower expression in pancreas, testis, colon and small intestine, Ly-6H participates in the activation of T lymphocytes. Overexpression of Ly-6H is detected in certain acute human leukemic cell lines (such as MOLT-3), suggesting a possible role for Ly-6H in carcinogenesis.

REFERENCES

1. LeClair, K.P., et al. 1986. Isolation of a murine Ly-6 cDNA reveals a new multigene family. EMBO J. 5: 3227-3234.
2. Rock, K.L., et al. 1989. The LY-6 locus: a multigene family encoding phosphatidylinositol-anchored membrane proteins concerned with T-cell activation. Immunol. Rev. 111: 195-224.
3. Horie, M., et al. 1998. Isolation and characterization of a new member of the human Ly6 gene family (LY6H). Genomics 53: 365-368.
4. Apostolopoulos, J., et al. 1999. Identification of mouse Ly6H and its expression in normal tissue. Immunogenetics 49: 987-990.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603625. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Flanagan, K., et al. 2008. Intestinal epithelial cell up-regulation of LY6 molecules during colitis results in enhanced chemokine secretion. J. Immunol. 180: 3874-3881.

CHROMOSOMAL LOCATION

Genetic locus: Ly6h (mouse) mapping to 15 E1.

PRODUCT

Ly-6H 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 Ly-6H shRNA Plasmid (m): sc-149160-SH and Ly-6H shRNA (m) Lentiviral Particles: sc-149160-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 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

Ly-6H siRNA (m) is recommended for the inhibition of Ly-6H 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 Ly-6H gene expression knockdown using RT-PCR Primer: Ly-6H (m)-PR: sc-149160-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.