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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

Ly-6D siRNA (m): sc-149158

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ly-6D (lymphocyte antigen 6D), also known as E48 antigen, is a 128 amino acid glycoprotein that is expressed in squamous cell carcinoma cell lines and squamous cell epithelia tissue. Ly-6D contains a signal peptide, two theoretical phosphorylation sites and three putative myristoylation sites. Upregulation of the gene encoding Ly-6D in head and neck cancers is associated with poor prognosis and high expression of Ly-6D has been linked to enhanced cell migration. Ly-6D is frequently used as a molecular marker for diagnosis and therapy of head-and-neck squamous cell carcinoma (HNSCC). It has been suggested that Ly-6D may regulate the expression levels of certain fucosylated E-selectin ligands and protein FX, a protein that contributes to the last step in the synthesis of GDP-L-fucose, in HNSCC cell lines. This finding is indicative that Ly-6D may regulate tumor cell adhesion in inflamed vessel walls that express E-selectin.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ly6d (mouse) mapping to 15 D3.

PROTOCOLS

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

PRODUCT

Ly-6D 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-6D shRNA Plasmid (m): sc-149158-SH and Ly-6D shRNA (m) Lentiviral Particles: sc-149158-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

Ly-6D siRNA (m) is recommended for the inhibition of Ly-6D 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.

GENE EXPRESSION MONITORING

Ly-6D (RGRSL 114.8.1): sc-65885 is recommended as a control antibody for monitoring of Ly-6D gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Ly-6D gene expression knockdown using RT-PCR Primer: Ly-6D (m)-PR: sc-149158-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.