SANTA CRUZ BIOTECHNOLOGY, INC.

GlyCAM1 siRNA (m): sc-145454

BACKGROUND

GlyCAM1 (Glycosylation-dependent cell adhesion molecule 1), also known as MC26 and SGP50, is a 151 amino acid protein belonging to the PP3/GlyCAM-1 family. A cellular membrane protein, GlyCAM1 is extensively O-glycosylated and thought to function as an adhesion molecule through interaction of carbohydrates and the lectin domain of L-selectin as an L-selectin ligand. GlyCAM1 is well expressed in the lymph nodes, where it is thought to mediate the initial adhesion of leukocytes to specialized high endothelial venules in lymph nodes and venules at sites of inflammation, as well as in the mammary glands of late-term pregnant and lactating mice. The gene that encodes the GlyCAM1 protein in mice is located on chromosome 15 F3, and contains four exons.

REFERENCES

1. Lasky, L.A., et al. 1992. An endothelial ligand for L-selectin is a novel mucin-like molecule. Cell 69: 927-938.
2. Nishimura, T., et al. 1993. Expression of the mC26 gene encoding GlyCAM-1 in the lactating mouse mammary gland. J. Biochem. 114: 567-569.
3. Dowbenko, D., et al. 1993. Structure and chromosomal localization of the murine gene encoding GLYCAM 1. A mucin-like endothelial ligand for L selectin. J. Biol. Chem. 268: 4525-4529.
4. Hemmerich, S., et al. 1994. 6'-sulfated sialyl Lewis x is a major capping group of GlyCAM-1. Biochemistry 33: 4830-4835.
5. Hemmerich, S., et al. 1995. Structure of the O-glycans in GlyCAM-1, an endothelial-derived ligand for L-selectin. J. Biol. Chem. 270: 12035-12047.
6. Suguri, T., et al. 1996. Increased plasma GlyCAM-1, a mouse L-selectin ligand, in response to an inflammatory stimulus. J. Leukoc. Biol. 60: 593-597.
7. Hou, Z., et al. 2003. Two tandemly linked interferon-γ-activated sequence elements in the promoter of glycosylation-dependent cell adhesion molecule 1 gene synergistically respond to prolactin in mouse mammary epithelial cells. Mol. Endocrinol. 17: 1910-1920.

CHROMOSOMAL LOCATION

Genetic locus: Glycam1 (mouse) mapping to 15 F3.

PRODUCT

GlyCAM1 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 GlyCAM1 shRNA Plasmid (m): sc-145454-SH and GlyCAM1 shRNA (m) Lentiviral Particles: sc-145454-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

GlyCAM1 siRNA (m) is recommended for the inhibition of GlyCAM1 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 GlyCAM1 gene expression knockdown using RT-PCR Primer: GlyCAM1 (m)-PR: sc-145454-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.