

Stabilin-1 siRNA (h): sc-45784

BACKGROUND

Stabilin-1 (also known as MS-1 antigen or FEEL1) is a large, transmembrane receptor protein that is involved in cell adhesion, angiogenesis, lymphocyte homing and receptor scavenging. It may also be involved in defense against bacterial infections by binding to both Gram-positive and Gram-negative bacteria. Stabilin-1 is primarily expressed on sinusoidal endothelial cells of liver, spleen, lymph node and placenta. It contains tandem fasciclin domains, epidermal growth factor-like repeats and a C-type lectin-like hyaluronan-binding Link module, which functions as an endocytic receptor for acetylated low density lipoprotein and advanced glycation end products. Stabilin-1 has also been reported to mediate both homing of leukocytes across lymph node high endothelial venules and adhesion of metastatic tumor cells to peritumoral lymphatic vessels.

REFERENCES

1. Politz, O., et al. 2002. Stabilin-1 and -2 constitute a novel family of fasciclin-like hyaluronan receptor homologues. *Biochem. J.* 362: 155-164.
2. Falkowski, M., et al. 2003. Expression of Stabilin-2, a novel fasciclin-like hyaluronan receptor protein, in murine sinusoidal endothelia, avascular tissues, and at solid/liquid interfaces. *Histochem. Cell Biol.* 120: 361-369.
3. Kzhyshkowska, J., et al. 2004. Stabilin-1 localizes to endosomes and the *trans*-Golgi network in human macrophages and interacts with GGA adaptors. *J. Leukoc. Biol.* 76: 1151-1161.
4. Prevo, R., et al. 2004. Rapid plasma membrane-endosomal trafficking of the lymph node sinus and high endothelial venule scavenger receptor/homing receptor stabilin-1 (FEEL-1/CLEVER-1). *J. Biol. Chem.* 279: 52580-52592.
5. McCourt, P.A., et al. 2004. The liver sinusoidal endothelial cell hyaluronan receptor and its homolog, Stabilin-1—their roles (known and unknown) in endocytosis. *Comp. Hepatol.* 3: S24.

CHROMOSOMAL LOCATION

Genetic locus: STAB1 (human) mapping to 3p21.1.

PRODUCT

Stabilin-1 siRNA (h) is a pool of 3 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Stabilin-1 shRNA Plasmid (h): sc-45784-SH and Stabilin-1 shRNA (h) Lentiviral Particles: sc-45784-V as alternate gene silencing products.

For independent verification of Stabilin-1 (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-45784A, sc-45784B and sc-45784C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Stabilin-1 siRNA (h) is recommended for the inhibition of Stabilin-1 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 μ M in 66 μ l. 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

Stabilin-1 (4G9): sc-293254 is recommended as a control antibody for monitoring of Stabilin-1 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Stabilin-1 gene expression knockdown using RT-PCR Primer: Stabilin-1 (h)-PR: sc-45784-PR (20 μ l). 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.