



HARE siRNA (m): sc-145896

BACKGROUND

HARE (also designated stabilin-2) is the hyaluronan receptor for endocytosis, which mediates the endocytic clearance of hyaluronan (HA) and chondroitin sulfate from lymph fluid and blood. HARE is expressed in endothelial sinuses of liver, lymph nodes, spleen and bone marrow, and in specialized structures of the eye, heart, brain and kidney. Human and rat HARE each have two isoforms. HARE may serve to maintain tissue integrity by supporting extracellular matrix turnover or it may contribute to maintaining fluidity of bodily liquids by resorption of hyaluronan. When studies of clearance of hyaluronan (HA) and scavenger receptor ligands by liver sinusoidal endothelial cells (LSECs) were performed, HARE had a clear scavenging profile, stabilin-1 did not.

REFERENCES

1. Adachi, H., et al. 2002. FEEL-1, a novel scavenger receptor with *in vitro* bacteria-binding and angiogenesis-modulating activities. *J. Biol. Chem.* 277: 34264-34270.
2. Politz, O., et al. 2002. Stabilin-1 and -2 constitute a novel family of fasciclin-like hyaluronan receptor homologues. *Biochem. J.* 362: 155-164.
3. Zhou, B., et al. 2002. Molecular cloning and functional expression of the rat 175-kDa hyaluronan receptor for endocytosis. *Mol. Biol. Cell* 13: 2853-2868.
4. 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.
5. Weigel, J.A., et al. 2003. A blocking antibody to the hyaluronan receptor for endocytosis (HARE) inhibits hyaluronan clearance by perfused liver. *J. Biol. Chem.* 278: 9808-9812.
6. Weigel, J.A., et al. 2003. Characterization of the recombinant rat 175-kDa hyaluronan receptor for endocytosis (HARE). *J. Biol. Chem.* 278: 42802-42811.
7. Zhou, B., et al. 2003. Purification and molecular identification of the human hyaluronan receptor for endocytosis. *Glycobiology* 13: 339-349.
8. Harris, E.N., et al. 2004. Endocytic function, glycosaminoglycan specificity, and antibody sensitivity of the recombinant human 190-kDa hyaluronan receptor for endocytosis (HARE). *J. Biol. Chem.* 279: 36201-36209.
9. Hansen, B., et al. 2005. Stabilin-1 and stabilin-2 are both directed into the early endocytic pathway in hepatic sinusoidal endothelium via interactions with clathrin/AP-2, independent of ligand binding. *Exp. Cell Res* 303: 160-173.

CHROMOSOMAL LOCATION

Genetic locus: Stab2 (mouse) mapping to 10 C1.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

HARE siRNA (m) 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 HARE shRNA Plasmid (m): sc-145896-SH and HARE shRNA (m) Lentiviral Particles: sc-145896-V as alternate gene silencing products.

For independent verification of HARE (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-145896A, sc-145896B and sc-145896C.

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

HARE siRNA (m) is recommended for the inhibition of HARE 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor HARE gene expression knockdown using RT-PCR Primer: HARE (m)-PR: sc-145896-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.