SANTA CRUZ BIOTECHNOLOGY, INC.

HARE siRNA (h): sc-105433

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.

CHROMOSOMAL LOCATION

Genetic locus: STAB2 (human) mapping to 12q23.3.

PRODUCT

HARE 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HARE shRNA Plasmid (h): sc-105433-SH and HARE shRNA (h) Lentiviral Particles: sc-105433-V as alternate gene silencing products.

For independent verification of HARE (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-105433A, sc-105433B and sc-105433C.

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

HARE siRNA (h) is recommended for the inhibition of HARE 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 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

HARE (B-2): sc-398732 is recommended as a control antibody for monitoring of HARE 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 HARE gene expression knockdown using RT-PCR Primer: HARE (h)-PR: sc-105433-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.