SANTA CRUZ BIOTECHNOLOGY, INC.

Layilin siRNA (m): sc-146659

BACKGROUND

The Actin cytoskeleton is crucial for cell shape and motility. The interactions between the cell membrane and actin filaments are important for many cellular processes. Layilin is a widely expressed integral membrane hyaluronan receptor that interacts with the ERM protein family of cytoskeletal membrane linker molecule members, including talin, ezrin, moesin, and radixin. Layilin plays an important role in cell adhesion and motility. Layilin is important for the maintenance of the cortical structure in the cell because it mediates signals from the extracellular matrix to the cytoskeleton. In spreading cells, Layilin acts as a membrane-binding site for talin in the peripheral ruffles, and it may play a role in the migration of cells to a wound site.

REFERENCES

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2. Borowsky, M.L. and Hynes, R.O. 1998. Layilin, a novel talin-binding transmembrane protein homologous with C-type lectins, is localized in membrane ruffles. J. Cell Biol. 143: 429-442.
3. Bono, P., Rubin, K., Higgins, J.M. and Hynes, R.O. 2001. Layilin, a novel integral membrane protein, is a hyaluronan receptor. Mol. Biol. Cell 12: 891-900.
4. Weng, L., Smits, P., Wauters, J. and Merregaert, J. 2002. Molecular cloning and characterization of human chondrolectin, a novel type I transmembrane protein homologous to C-type lectins. Genomics 80: 62-70.
5. Weng, L., Hübner, R., Claessens, A., Smits, P., Wauters, J., Tylzanowski, P., Van Marck, E. and Merregaert, J. 2003. Isolation and characterization of chondrolectin (Chodl), a novel C-type lectin predominantly expressed in muscle cells. Gene 308: 21-29.
6. Bono, P., Cordero, E., Johnson, K., Borowsky, M., Ramesh, V., Jacks, T. and Hynes, R.O. 2005. Layilin, a cell surface hyaluronan receptor, interacts with merlin and radixin. Exp. Cell Res. 308: 177-87.

CHROMOSOMAL LOCATION

Genetic locus: Layn (mouse) mapping to 9 A5.3.

PRODUCT

Layilin 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 Layilin shRNA Plasmid (m): sc-146659-SH and Layilin shRNA (m) Lentiviral Particles: sc-146659-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

Layilin siRNA (m) is recommended for the inhibition of Layilin 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 Layilin gene expression knockdown using RT-PCR Primer: Layilin (m)-PR: sc-146659-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.