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SANTA CRUZ BIOTECHNOLOGY, INC.

otoancorin siRNA (m): sc-151340

BACKGROUND

Otoancorin, also known as OTOA, CT108 or DFNB22, is a 1,153 amino acid protein belonging to the stereocilin family. Expressed in the inner ear and restricted to the interface between the apical surface of sensory epithelia, otoancorin is suggested to act as an adhesion molecule. Otoancorin ensures the attachment of the inner ear acellular gels to the apical surface of the underlying nonsensory cells. Mutations in the gene encoding otoancorin leads to deafness autosomal recessive type 22 (DFNB22), which is a form of sensorineural hearing loss. Sensorineural deafness results from damage to the neural receptors of the inner ear, the nerve pathways to the brain or the area of the brain that receives sound information. Existing as three alternatively spliced isoforms, otoancorin is encoded by a gene located on human chromosome 16p12.2.

REFERENCES

1. Jovine, L., Park, J. and Wassarman, P.M. 2002. Sequence similarity between stereocilin and otoancorin points to a unified mechanism for mechanotransduction in the mammalian inner ear. BMC Cell Biol. 3: 28.
2. Zwaenepoel, I., Mustapha, M., Leibovici, M., Verpy, E., Goodyear, R., Liu, X.Z., Nouaille, S., Nance, W.E., Kanaan, M., Avraham, K.B., Tekaia, F., Loiselet, J., Lathrop, M., Richardson, G. and Petit, C. 2002. Otoancorin, an inner ear protein restricted to the interface between the apical surface of sensory epithelia and their overlying acellular gels, is defective in autosomal recessive deafness DFNB22. Proc. Natl. Acad. Sci. USA 99: 6240-6245.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607039. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Walsh, T., Abu Rayan, A., Abu Sa'ed, J., Shahin, H., Shepshelovich, J., Lee, M.K., Hirschberg, K., Tekin, M., Salhab, W., Avraham, K.B., King, M.C. and Kanaan, M. 2006. Genomic analysis of a heterogeneous Mendelian phenotype: multiple novel alleles for inherited hearing loss in the Palestinian population. Hum. Genomics 2: 203-211.
5. Sathyanarayana, B.K., Hahn, Y., Patankar, M.S., Pastan, I. and Lee, B. 2009. Mesothelin, Stereocilin, and otoancorin are predicted to have superhelical structures with ARM-type repeats. BMC Struct. Biol. 9: 1.
6. Shahin, H., Walsh, T., Rayyan, A.A., Lee, M.K., Higgins, J., Dickel, D., Lewis, K., Thompson, J., Baker, C., Nord, A.S., Stray, S., Gurwitz, D., Avraham, K.B., King, M.C. and Kanaan, M. 2010. Five novel loci for inherited hearing loss mapped by SNP-based homozygosity profiles in Palestinian families. Eur. J. Hum. Genet. 18: 407-413.

CHROMOSOMAL LOCATION

Genetic locus: Otoa (mouse) mapping to 7 F2.

PROTOCOLS

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

PRODUCT

otoancorin 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see otoancorin shRNA Plasmid (m): sc-151340-SH and otoancorin shRNA (m) Lentiviral Particles: sc-151340-V as alternate gene silencing products.

For independent verification of otoancorin (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-151340A, sc-151340B and sc-151340C.

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

otoancorin siRNA (m) is recommended for the inhibition of otoancorin 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 otoancorin gene expression knockdown using RT-PCR Primer: otoancorin (m)-PR: sc-151340-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.