SANTA CRUZ BIOTECHNOLOGY, INC.

PCDH9 siRNA (h): sc-76086

BACKGROUND

Protocadherins are a subfamily of cadherins, a large group of related glycoproteins that mediate calcium-dependent cell-to-cell adhesion via a homophilic mechanism. Involved in a variety of functions, protocadherins help to regulate neural development and synapse formation. PCDH9 (protocadherin 9) is a member of the δ1-protocadherin family comprised of PCDH1, PCDH7, PCDH9 and PCDH11. Localized to the cell membrane and expressed primarily in the brain, PCDH9 is found in synaptic junctions, where it functions as a neuronal receptor involved in signal transduction and maintaining specific neuronal connections. PCDH9 contains seven cadherin domains and exists as two isoforms produced by alternative splicing. Expression of PCDH9 is found in hairy cell leukemia, a form of chronic lymphocytic leukemia.

REFERENCES

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3. Vanhalst, K., Kools, P., Staes, K., van Roy, F. and Redies, C. 2005. δ-protocadherins: a gene family expressed differentially in the mouse brain. Cell. Mol. Life Sci. 62: 1247-1259.
4. Redies, C., Vanhalst, K. and Roy, F. 2005. δ-protocadherins: unique structures and functions. Cell. Mol. Life Sci. 62: 2840-2852.
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CHROMOSOMAL LOCATION

Genetic locus: PCDH9 (human) mapping to 13q21.32.

PRODUCT

PCDH9 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 PCDH9 shRNA Plasmid (h): sc-76086-SH and PCDH9 shRNA (h) Lentiviral Particles: sc-76086-V as alternate gene silencing products.

For independent verification of PCDH9 (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-76086A, sc-76086B and sc-76086C.

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

PCDH9 siRNA (h) is recommended for the inhibition of PCDH9 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PCDH9 gene expression knockdown using RT-PCR Primer: PCDH9 (h)-PR: sc-76086-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.