SANTA CRUZ BIOTECHNOLOGY, INC.

PCDHA4 siRNA (h): sc-106377

BACKGROUND

Members of the cadherin-related neuronal receptor (CNR) family, including PCDHA4 (also known as CNR1) and PCDHA6 (also known as CNR2), comprise a novel subfamily within the cadherin superfamily of adhesion molecules. The cadherin-related neuronal receptor proteins form a complex with Fyn, a protein tyrosine kinase that is involved in building brain networks and determining patterns of behavior. Cadherin-related neuronal receptor 1 and 2 were discovered during a search for receptor molecules to the Fyn signaling pathway in the mammalian brain. Members of the cadherin superfamily are Ca^{2+}-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. The PCDHA4 and PCDHA6 extracellular domains contain six cadherin repeats that mediate Ca^{2+}-dependent cell adhesion, while the cytoplasmic domains are not homologous with other cadherins.

REFERENCES

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5. Kai, N., Mishina, M. and Yagi, T. 1997. Molecular cloning of Fyn-associated molecules in the mouse central nervous system. J. Neurosci. Res. 48: 407-424.
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CHROMOSOMAL LOCATION

Genetic locus: PCDHA4 (human) mapping to 5q31.3.

PRODUCT

PCDHA4 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 PCDHA4 shRNA Plasmid (h): sc-106377-SH and PCDHA4 shRNA (h) Lentiviral Particles: sc-106377-V as alternate gene silencing products.

For independent verification of PCDHA4 (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-106377A, sc-106377B and sc-106377C.

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

PCDHA4 siRNA (h) is recommended for the inhibition of PCDHA4 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 PCDHA4 gene expression knockdown using RT-PCR Primer: PCDHA4 (h)-PR: sc-106377-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.

PROTOCOLS

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