

PCDHA6 siRNA (h): sc-106379

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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CHROMOSOMAL LOCATION

Genetic locus: PCDHA6 (human) mapping to 5q31.3.

PRODUCT

PCDHA6 siRNA (h) 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 PCDHA6 shRNA Plasmid (h): sc-106379-SH and PCDHA6 shRNA (h) Lentiviral Particles: sc-106379-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

PCDHA6 siRNA (h) is recommended for the inhibition of PCDHA6 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

PCDHA6 (S-13): sc-81799 is recommended as a control antibody for monitoring of PCDHA6 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 PCDHA6 gene expression knockdown using RT-PCR Primer: PCDHA6 (h)-PR: sc-106379-PR (20 μl). Annealing temperature for the primers should be $55-60^{\circ}\text{C}$ and the extension temperature should be $68-72^{\circ}\text{C}$.

RESEARCH USE

For research use only, not for use in diagnostic procedures.