



Nectin 3 siRNA (m): sc-36025

BACKGROUND

Nectin is a Ca^{2+} -independent homophilic cell adhesion molecule that belongs to the immunoglobulin superfamily. Human Nectin is identical to the poliovirus receptor-related protein (PRR) and is identified to be the α herpesvirus entry mediator. Nectin constitutes a family consisting of at least Nectin 1, 2 and 3. Nectin 2 and 3 are ubiquitously expressed, whereas Nectin 1 is abundantly expressed in brain. Nectin 3, also designated as PRR3, has three splicing variants: Nectin 3 α , 3 β and 3 γ . Nectin 3 is a transmembrane protein whose extracellular region contains three Ig-like domains. Nectin 3 α and 3 β , but not Nectin 3 γ , have a C-terminal conserved motif (E/A-X-Y-V). This motif interacts with the PDZ domain of the F-Actin-binding protein, afadin, through which it is linked to the Actin cytoskeleton. Nectin 3 α co-localizes with Nectin 2 at cadherin-based adherens junctions and interacts with afadin.

REFERENCES

1. Lopez, M., et al. 1995. Complementary DNA characterization and chromosomal localization of a human gene related to the poliovirus receptor-encoding gene. *Gene* 155: 261-265.
2. Asakura, T., et al. 1999. Similar and differential behavior between the Nectin-afadin-ponsin and cadherin-catenin systems during the formation and disruption of the polarized junctional alignment in epithelial cells. *Genes Cells* 4: 573-581.
3. Satoh-Horikawa, K., et al. 2000. Nectin 3, a new member of immunoglobulin-link cell adhesion molecules that shows homophilic and heterophilic cell-cell adhesion activities. *J. Biol. Chem.* 275: 10291-10299.
4. Raymond, N., et al. 2000. Human Nectin 3/PRR3: a novel member of the PVR/PRR/Nectin family that interacts with afadin. *Gene* 255: 347-355.
5. Kikyo, M., et al. 2000. Cell-cell adhesion-mediated tyrosine phosphorylation of Nectin-28, an immunoglobulin-like cell adhesion molecule at adherens junctions. *Oncogene* 19: 4022-4028.

CHROMOSOMAL LOCATION

Genetic locus: Pvr13 (mouse) mapping to 16 B5.

PRODUCT

Nectin 3 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 Nectin 3 shRNA Plasmid (m): sc-36025-SH and Nectin 3 shRNA (m) Lentiviral Particles: sc-36025-V as alternate gene silencing products.

For independent verification of Nectin 3 (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-36025A, sc-36025B and sc-36025C.

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

Nectin 3 siRNA (m) is recommended for the inhibition of Nectin 3 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.

GENE EXPRESSION MONITORING

Nectin 3 (H-11): sc-271611 is recommended as a control antibody for monitoring of Nectin 3 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 MarkerTM 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 Nectin 3 gene expression knockdown using RT-PCR Primer: Nectin 3 (m)-PR: sc-36025-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.