

# Nectin 3 siRNA (h): sc-36024

## BACKGROUND

Nectin is a Ca<sup>2+</sup>-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  $\alpha$  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 $\alpha$ , 3 $\beta$  and 3 $\gamma$ . Nectin 3 is a transmembrane protein whose extracellular region contains three Ig-like domains. Nectin 3 $\alpha$  and 3 $\beta$ , but not Nectin 3 $\gamma$ , 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 $\alpha$  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-2 $\delta$ , an immunoglobulin-like cell adhesion molecule at adherens junctions. *Oncogene* 19: 4022-4028.

## CHROMOSOMAL LOCATION

Genetic locus: PVRL3 (human) mapping to 3q13.13.

## PRODUCT

Nectin 3 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Nectin 3 shRNA Plasmid (h): sc-36024-SH and Nectin 3 shRNA (h) Lentiviral Particles: sc-36024-V as alternate gene silencing products.

For independent verification of Nectin 3 (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-36024A, sc-36024B and sc-36024C.

## PROTOCOLS

See our web site at [www.scbt.com](http://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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Nectin 3 siRNA (h) is recommended for the inhibition of Nectin 3 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  $\mu$ M in 66  $\mu$ l. 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 $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 (h)-PR: sc-36024-PR (20  $\mu$ l, 598 bp). 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.