

# Nectin 2 (A-13): sc-51147

## 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 has been identified as the  $\alpha$ -herpesvirus entry mediator. Nectin constitutes a family consisting of at least Nectin 1, 2 and 3; each member has two or three splicing variants. Nectin 2, also designated PRR2/HveB, is ubiquitously expressed, with the highest levels of expression in some human neuronal cell lines, fibroblastic cells, keatinocytes and primary activated T lymphocytes. Nectin 2 has two splicing variants, Nectin 2 $\alpha$  (short form) and 2 $\delta$  (long form). Both Nectin 2 $\alpha$  and 2 $\delta$  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. The extracellular regions of the splicing variants are identical, but their transmembrane regions and cytoplasmic regions are unique. Nectin 2 mediates the entry of three mutant herpes simplex virus type 1 (HSV-1) strains that do not use HveA as co-receptor, but not wildtype HSV-1 strains. Nectin 2 also mediates the entry of HSV-2 and pseudorabies virus, but not bovine herpes virus type 1. Nectin 2 $\delta$  is tyrosine phosphorylated in response to cell-cell adhesion.

## REFERENCES

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2. Eberle, F., Durbreuil, P., Mattei, M.G., Devillard, E. and Lopez, M. 1995. The human PRR2 gene, related to the human poliovirus receptor gene (PVR), is the true homolog of the murine MPH gene. *Gene* 159: 267-272.
3. Warner, M.S., Geraghty, R.J., Martinez, W.M., Montgomery, R.I., Whiteck, J.C., Xu, R., Eisenberg, R.J., Cohen, G.H. and Spear, P.G. 1998. A cell surface protein with herpesvirus entry activity (HveB) confers susceptibility to infection by mutants of herpes simplex virus type 1, herpes simplex virus type 2, and pseudorabies virus. *Virology* 246: 179-189.
4. Kikyo, M., Matozaki, T., Kodama, A., Kawabe, H., Nakanishi, H. and Takai, Y. 2000. Cell-cell adhesion-mediated tyrosine phosphorylation of Nectin 2 $\delta$ , an immunoglobulin-like cell adhesion molecule at adherens junctions. *Oncogene* 19: 4022-4028.
5. Satoh-Horikawa, K., Nakanishi, H., Takahashi, K., Miyahara, M., Nishimura, M., Tachibana, K., Mizoguchi, A. and Takai, Y. 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.

## CHROMOSOMAL LOCATION

Genetic locus: Pvr12 (mouse) mapping to 7 A3.

## SOURCE

Nectin 2 (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Nectin 2 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-51147 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Nectin 2 (A-13) is recommended for detection of Nectin 2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Nectin 2 (A-13) is also recommended for detection of Nectin 2 in additional species, including equine and canine.

Suitable for use as control antibody for Nectin 2 siRNA (m): sc-43170, Nectin 2 shRNA Plasmid (m): sc-43170-SH and Nectin 2 shRNA (m) Lentiviral Particles: sc-43170-V.

Molecular Weight of Nectin 2 $\alpha$ : 60 kDa.

Molecular Weight of Nectin 2 $\delta$ : 65 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **Nectin 2 (D-11): sc-373715** or **Nectin 2 (6A606): sc-71660**, our highly recommended monoclonal alternatives to Nectin 2 (A-13).