

Nectin 2 (R2.525): sc-32804

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 has been identified as the α -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, keratinocytes and primary activated T lymphocytes. Nectin 2 has two splicing variants, Nectin 2 α (short form) and 2 δ (long form). Both Nectin 2 α and 2 δ 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 δ is tyrosine phosphorylated in response to cell-cell adhesion.

CHROMOSOMAL LOCATION

Genetic locus: PVRL2 (human) mapping to 19q13.32.

SOURCE

Nectin 2 (R2.525) is a mouse monoclonal antibody raised against 3T3 cells transfected with Nectin 2 cDNA of human origin.

PRODUCT

Each vial contains 200 μg IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nectin 2 (R2.525) is available conjugated to either phycoerythrin (sc-32804 PE) or fluorescein (sc-32804 FITC), 200 $\mu\text{g}/\text{ml}$, for WB (RGB), IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

Nectin 2 (R2.525) is recommended for detection of Nectin 2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μg per 1 x 10⁶ cells).

Suitable for use as control antibody for Nectin 2 siRNA (h): sc-43169, Nectin 2 shRNA Plasmid (h): sc-43169-SH and Nectin 2 shRNA (h) Lentiviral Particles: sc-43169-V.

Molecular Weight of Nectin 2 α : 60 kDa.

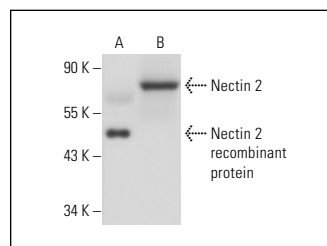
Molecular Weight of Nectin 2 δ : 65 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

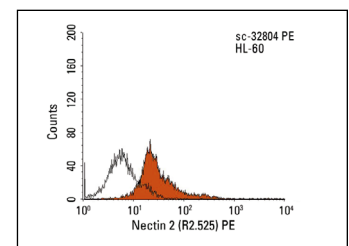
RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Nectin 2 (R2.525): sc-32804. Western blot analysis of human recombinant Nectin 2 (A) and Nectin 2 expression in ECV304 whole cell lysate (B).



Nectin 2 (R2.525) PE: sc-32804 PE. FCM analysis of HL-60 cells. Black line histogram represents the isotype control, normal mouse IgG $_1$ -PE, sc-2866.

SELECT PRODUCT CITATIONS

- Indra, I., et al. 2013. The adherens junction: a mosaic of cadherin and nectin clusters bundled by Actin filaments. *J. Invest. Dermatol.* 133: 2546-2554.
- Bolyard, C., et al. 2014. Doxorubicin synergizes with 34.5ENVE to enhance antitumor efficacy against metastatic ovarian cancer. *Clin. Cancer Res.* 20: 6479-6494.
- Leddon, J.L., et al. 2015. Oncolytic HSV virotherapy in murine sarcomas differentially triggers an antitumor T-cell response in the absence of virus permissivity. *Mol. Ther. Oncolytics* 1: 14010.
- Troyanovsky, R.B., et al. 2015. Cadherin controls nectin recruitment into adherens junctions by remodeling the actin cytoskeleton. *J. Cell Sci.* 128: 140-149.
- Wang, P.Y., et al. 2016. Neuroblastomas vary widely in their sensitivities to herpes simplex virotherapy unrelated to virus receptors and susceptibility. *Gene Ther.* 23: 135-143.
- Tetzlaff, F., et al. 2018. MPDZ promotes DLL4-induced Notch signaling during angiogenesis. *Elife* 7: e32860.
- Russo, E., et al. 2021. CD112 regulates angiogenesis and T cell entry into the spleen. *Cells* 10: 169.

RESEARCH USE

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