SANTA CRUZ BIOTECHNOLOGY, INC.

Nectin 2 (6A606): sc-71660

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The Power to Question

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 ubquitously 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 2α (short form) and 2δ (long form). Both Nectin 2α and 2δ 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 2δ is tyrosine phosphorylated in response to cell-cell adhesion.

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. Eberle, F., et al. 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., et al. 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. 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.
5. Kikyo, M., et al. 2000. Cell-cell adhesion-mediated tyrosine phosphorylation of nectin-2δ, an immunoglobulin-like cell adhesion molecule at adherens junctions. Oncogene 19: 4022-4028.

CHROMOSOMAL LOCATION

Genetic locus: PVRL2 (human) mapping to 19q13.32; Pvrl2 (mouse) mapping to 7 A3.

SOURCE

Nectin 2 (6A606) is a rat monoclonal antibody raised against the extracellular domain of Nectin 2 of mouse origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Nectin 2 (6A606) is recommended for detection of Nectin 2 of mouse, rat and 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 10^6 cells).

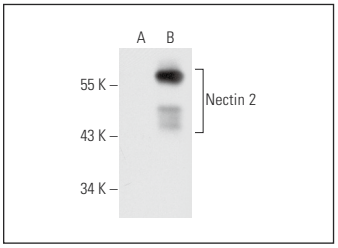
Suitable for use as control antibody for Nectin 2 siRNA (h): sc-43169, Nectin 2 siRNA (m): sc-43170, Nectin 2 shRNA Plasmid (h): sc-43169-SH, Nectin 2 shRNA Plasmid (m): sc-43170-SH, Nectin 2 shRNA (h) Lentiviral Particles: sc-43169-V and Nectin 2 shRNA (m) Lentiviral Particles: sc-43170-V.

Molecular Weight of Nectin 2α: 60 kDa.

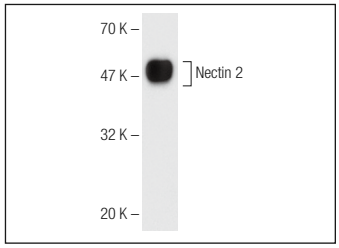
Molecular Weight of Nectin 2δ: 65 kDa.

Positive Controls: ECV304 cell lysate: sc-2269 or Nectin 2 (m): 293T Lysate: sc-127214.

DATA



Nectin 2 (6A606): sc-71660. Western blot analysis of Nectin 2 expression in non-transfected: sc-117752 (**A**) and mouse Nectin 2 transfected: sc-127214 (**B**) 293T whole cell lysates.



Nectin 2 (6A606): sc-71660. Western blot analysis of mouse recombinant Nectin 2.

SELECT PRODUCT CITATIONS

1. Wu, M.R., et al. 2015. DNAM-1-based chimeric antigen receptors enhance T cell effector function and exhibit *in vivo* efficacy against melanoma. Cancer Immunol. Immunother. 64: 409-418.

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 for detailed protocols and support products.