

Nectin 1 (C-20): sc-14798

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 the brain. Nectin 1 exists as Nectin 1 α and 1 β /HlgR, produced by alternative splicing. The cytoplasmic regions of Nectin 1 α , but not Nectin 1 β /HlgR, 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 1, also designated HveC/ PRR1, allows the entry of herpes simplex virus type 1 (HSV-1) and HSV-2 into mammalian cells. The interaction of virus envelope glycoprotein D (gD) with Nectin 1 is an essential step in the process leading to membrane fusion; the gD binding site is located at the first Ig-like domain of Nectin 1. Both the transinteraction of Nectin and the interaction of Nectin with afadin are necessary for their co-localization with E-cadherin and catenins at adherens junctions.

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. Geraghty, R.J., et al. 1998. Entry of α herpes viruses mediated by poliovirus receptor-related protein 1 and poliovirus receptor. *Science* 280: 1618-1620.
3. Kikyo, M., et al. 2000. Cell-cell adhesion-mediated tyrosine phosphorylation of Nectin 2 δ , an immunoglobulin-like cell adhesion molecule at adherens junctions. *Oncogene* 19: 4022-4028.
4. Krummenacher, C., et al. 2000. Localization of a binding site for herpes simplex virus glycoprotein D on herpesvirus entry mediator C by using antireceptor monoclonal antibodies. *J. Virol.* 74: 10863-10872.
5. Shukla, D., et al. 2000. Striking similarity of murine Nectin 1 α (HveC) in sequence and activity as a glycoprotein D receptor for α herpesvirus entry. *J. Virol.* 74: 11773-11781.

CHROMOSOMAL LOCATION

Genetic locus: PVRL1 (human) mapping to 11q23.3; Pvr1 (mouse) mapping to 9 A5.1.

SOURCE

Nectin 1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Nectin 1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-14798 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nectin 1 (C-20) is recommended for detection of Nectin 1 of mouse, rat and human 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 1 (C-20) is also recommended for detection of Nectin 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Nectin 1 siRNA (h): sc-36022, Nectin 1 siRNA (m): sc-36023, Nectin 1 shRNA Plasmid (h): sc-36022-SH, Nectin 1 shRNA Plasmid (m): sc-36023-SH, Nectin 1 shRNA (h) Lentiviral Particles: sc-36022-V and Nectin 1 shRNA (m) Lentiviral Particles: sc-36023-V.

Molecular Weight of Nectin 1: 87 kDa.

Positive Controls: TF-1 cell lysate: sc-2412, IMR-32 cell lysate: sc-2409 or MEG-01 cell lysate: sc-2283.

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.

SELECT PRODUCT CITATIONS

1. Yu, Z., et al. 2007. Nectin 1 expression by squamous cell carcinoma is a predictor of herpes oncolytic sensitivity. *J. Biol. Chem.* 15: 103-113.

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 or our catalog for detailed protocols and support products.



Try **Nectin 1 (CK6): sc-21722** or **Nectin 1 (F-10): sc-271063**, our highly recommended monoclonal alternatives to Nectin 1 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Nectin 1 (CK6): sc-21722**.