

Nectin 1 (CK6): sc-21722

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

- 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.
- Geraghty, R.J., et al. 1998. Entry of α herpesviruses mediated by poliovirus receptor-related protein 1 and poliovirus receptor. *Science* 280: 1618-1620.

CHROMOSOMAL LOCATION

Genetic locus: NECTIN1 (human) mapping to 11q23.3; Nectin1 (mouse) mapping to 9 A5.1.

SOURCE

Nectin 1 (CK6) is a mouse monoclonal antibody raised against the V-domain of Nectin 1 of human origin.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nectin 1 (CK6) is available conjugated to agarose (sc-21722 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-21722 HRP), 200 $\mu\text{g}/\text{ml}$, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21722 PE), fluorescein (sc-21722 FITC), Alexa Fluor[®] 488 (sc-21722 AF488), Alexa Fluor[®] 546 (sc-21722 AF546), Alexa Fluor[®] 594 (sc-21722 AF594) or Alexa Fluor[®] 647 (sc-21722 AF647), 200 $\mu\text{g}/\text{ml}$, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-21722 AF680) or Alexa Fluor[®] 790 (sc-21722 AF790), 200 $\mu\text{g}/\text{ml}$, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

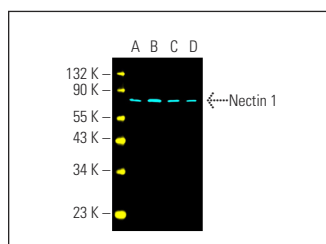
Nectin 1 (CK6) is recommended for detection of Nectin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 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.

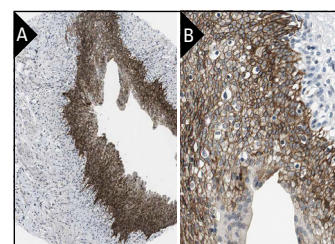
Molecular Weight of Nectin 1: 87 kDa.

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

DATA



Nectin 1 (CK6) Alexa Fluor[®] 647: sc-21722 AF647. Direct fluorescent western blot analysis of Nectin 1 expression in TF-1 (A), IMR-32 (B), Jurkat (C) and MEG-01 (D) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Cruz Marker[™] Molecular Weight Standards detected with Cruz Marker[™] MW Tag-Alexa Fluor[®] 488: sc-516790.



Nectin 1 (CK6): sc-21722. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing membrane staining of urothelial cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

- Young, P., et al. 2003. E-cadherin controls adherens junctions in the epidermis and the renewal of hair follicles. *EMBO J.* 22: 5723-5733.
- LaFrance, M.E., et al. 2015. Identification of an epithelial cell receptor responsible for *Clostridium difficile* TcdB-induced cytotoxicity. *Proc. Natl. Acad. Sci. USA* 112: 7073-7078.
- Deschamps, T., et al. 2017. Cbl E3 ligase mediates the removal of Nectin 1 from the surface of herpes simplex virus 1-infected cells. *J. Virol.* 91: e00393-17.
- Takahashi, Y., et al. 2018. Nectin 1 expression is frequently decreased in gastric cancers. *Pathol. Int.* 68: 557-562.
- Tampakis, A., et al. 2019. Nectin-1 expression in colorectal cancer: is there a group of patients with high risk for early disease recurrence? *Oncology* 96: 318-325.

RESEARCH USE

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