

# Nectin 1 (F-10): sc-271063

## 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 alphaherpesvirus 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 $\alpha$  and 1 $\beta$ /HlgR, produced by alternative splicing. The cytoplasmic regions of Nectin 1 $\alpha$ , but not Nectin 1 $\beta$ /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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Nectin 1 (F-10) is a mouse monoclonal antibody raised against amino acids 451-512 mapping near the C-terminus of Nectin 1 of human origin.

## PRODUCT

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

## 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 (F-10) is recommended for detection of Nectin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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).

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.

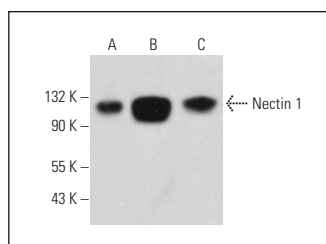
Molecular Weight of Nectin 1: 87 kDa.

Positive Controls: rat brain extract: sc-2392, human brain extract: sc-364375 or human cerebral cortex extract: sc-516707.

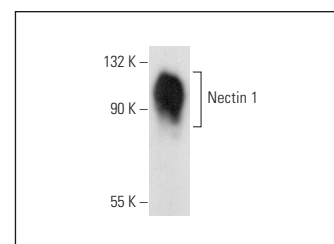
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 1 (F-10): sc-271063. Western blot analysis of Nectin 1 expression in rat brain (A), human cerebral cortex (B) and mouse postnatal brain (C) tissue extracts.



Nectin 1 (F-10): sc-271063. Western blot analysis of Nectin 1 expression in human brain tissue extract.

## SELECT PRODUCT CITATIONS

- Ghose, J., et al. 2021. Oncolytic herpes simplex virus infects myeloma cells *in vitro* and *in vivo*. *Mol. Ther. Oncolytics* 20: 519-531.
- Koujah, L., et al. 2021. Entry receptor bias in evolutionarily distant HSV-1 clinical strains drives divergent ocular and nervous system pathologies. *Ocul. Surf.* 21: 238-249.
- Bhattacharya, I., et al. 2022. Plasma membrane-derived liposomes exhibit robust antiviral activity against HSV-1. *Viruses* 14: 799.

## 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) for detailed protocols and support products.



See **Nectin 1 (CK6): sc-21722** for Nectin 1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.