

Nectin 4 (T-14): sc-54680

BACKGROUND

Homologous to the poliovirus receptor (PVR/CD155), the nectin immunoglobulin superfamily comprises four known isoforms (-1, -2, -3, and -4). The ecto-domain of nectin family members comprises three Ig-like domains (V, C, C). Nectins localize at the adherens junctions (AJ) in epithelial and endothelial cells where they serve as adhesion molecules. Actin-based AJs play a role in mechanical adhesion, cellular morphogenesis and cellular differentiation. Nectin associates with the actin cytoskeleton through its interaction with the actin filament-binding protein afadin. Nectin 4 and afadin co-localize at cadherin-based adherens junctions in MDCKII epithelial cells. Nectin 4 and nectin 3 share a common binding region in the V domain of Nectin 1 and thus compete for Nectin 1 binding. The Nectin 3/4 binding domain maps to the C-C'-C''-D β strands of the V domain of Nectin 1. Unlike other nectins, which are more widely expressed, Nectin 4 is mainly expressed in the placenta.

REFERENCES

1. Reymond, N., Fabre, S., Lecocq, E., Adelaide, J., Dubreuil, P. and Lopez, M. 2001. Nectin 4/PRR4, a new afadin-associated member of the nectin family that *trans*-interacts with Nectin 1/PRR1 through V domain interaction. *J. Biol. Chem.* 276: 43205-43215.
2. Mizoguchi, A., Nakanishi, H., Kimura, K., Matsubara, K., Ozaki-Kuroda, K., Katata, T., Honda, T., Kiyohara, Y., Heo, K., Higashi, M., Tsutsumi, T., Sonoda, S., Ide, C. and Takai, Y. 2002. Nectin: an adhesion molecule involved in formation of synapses. *J. Cell Biol.* 156: 555-565.
3. Fabre, S., Reymond, N., Cocchi, F., Menotti, L., Dubreuil, P., Campadelli-Fiume, G. and Lopez, M. 2002. Prominent role of the Ig-like V domain in trans-interactions of Nectins. Nectin 3 and Nectin 4 bind to the predicted C-C'-C''-D β-strands of the nectin1 V domain. *J. Biol. Chem.* 277: 27006-27013.
4. Ozaki-Kuroda, K., Nakanishi, H., Ohta, H., Tanaka, H., Kurihara, H., Mueller, S., Irie, K., Ikeda, W., Sakai, T., Wimmer, E., Nishimune, Y. and Takai, Y. 2002. Nectin couples cell-cell adhesion and the actin scaffold at heterotypic testicular junctions. *Curr. Biol.* 12: 1145-1150.
5. Peng, Y.F., Mandai, K., Nakanishi, H., Ikeda, W., Asada, M., Momose, Y., Shibamoto, S., Yanagihara, K., Shiozaki, H., Monden, M., Takeichi, M. and Takai, Y. 2002. Restoration of E-cadherin-based cell-cell adhesion by over-expression of Nectin in HSC-39 cells, a human signet ring cell gastric cancer cell line. *Oncogene* 21: 4108-4119.

CHROMOSOMAL LOCATION

Genetic locus: PVRL4 (human) mapping to 1q23.3; Pvr14 (mouse) mapping to 1 H3.

SOURCE

Nectin 4 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Nectin 4 of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-54680 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nectin 4 (T-14) is recommended for detection of Nectin 4 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 4 (T-14) is also recommended for detection of Nectin 4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Nectin 4 siRNA (h): sc-62669, Nectin 4 siRNA (m): sc-62670, Nectin 4 shRNA Plasmid (h): sc-62669-SH, Nectin 4 shRNA Plasmid (m): sc-62670-SH, Nectin 4 shRNA (h) Lentiviral Particles: sc-62669-V and Nectin 4 shRNA (m) Lentiviral Particles: sc-62670-V.

Molecular Weight of Nectin 4: 66 kDa.

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.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Nectin 4 (A-9): sc-515093**, our highly recommended monoclonal alternative to Nectin 4 (T-14).