

neuropilin (C-19): sc-7239

BACKGROUND

Neuropilin is a type I transmembrane receptor that has been implicated in aspects of axon growth and guidance and has been shown to act as a high affinity receptor for class III semaphorins and vascular endothelial growth factor (VEGF). A closely related protein, neuropilin-2, shares a common domain structure and significant homology with neuropilin and also acts as a receptor for the class III semaphorins and VEGF. Both neuropilins are involved in regulating many physiological pathways including axonal guidance and angiogenesis, however they exhibit differential expression in the adult vasculature. Neuropilin-2 is polysialylated and expressed on the surface of dendritic cells. It is also expressed by venous and lymphatic endothelium. Neuropilin is expressed predominantly by arterial endothelium.

CHROMOSOMAL LOCATION

Genetic locus: NRP1 (human) mapping to 10p11.22; Nrp1 (mouse) mapping to 8 E2.

SOURCE

neuropilin (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of neuropilin of human origin.

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-7239 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

neuropilin (C-19) is recommended for detection of neuropilin 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

neuropilin (C-19) is also recommended for detection of neuropilin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for neuropilin siRNA (h): sc-36038, neuropilin siRNA (m): sc-36039, neuropilin shRNA Plasmid (h): sc-36038-SH, neuropilin shRNA Plasmid (m): sc-36039-SH, neuropilin shRNA (h) Lentiviral Particles: sc-36038-V and neuropilin shRNA (m) Lentiviral Particles: sc-36039-V.

Molecular Weight of neuropilin: 130 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, neuropilin (h): 293T Lysate: sc-177622 or SK-N-SH cell lysate: sc-2410.

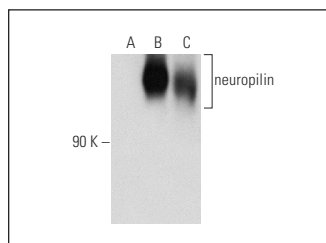
STORAGE

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.

DATA



neuropilin (C-19): sc-7239. Western blot analysis of neuropilin expression in non-transfected 293T: sc-117752 (A), human neuropilin transfected 293T: sc-177622 (B) and MDA-MB-231 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Abbott, B.D., et al. 2000. Placental defects in ARNT-knockout conceptus correlate with localized decreases in VEGF-R2, Ang-1, and Tie-2. *Dev. Dyn.* 219: 526-538.
- Zacchigna, S., et al. 2008. Bone marrow cells recruited through the neuropilin-1 receptor promote arterial formation at the sites of adult neoangiogenesis in mice. *J. Clin. Invest.* 118: 2062-2075.
- Lähteenvuo, J.E., et al. 2009. Vascular endothelial growth factor-B induces myocardium-specific angiogenesis and arteriogenesis via vascular endothelial growth factor receptor-1- and neuropilin receptor-1-dependent mechanisms. *Circulation* 119: 845-856.
- Valdembri, D., et al. 2009. Neuropilin-1/GIPC1 signaling regulates $\alpha 5 \beta 1$ integrin traffic and function in endothelial cells. *PLoS Biol.* 7: e25.
- Ball, S.G., et al. 2010. Neuropilin-1 regulates platelet-derived growth factor receptor signalling in mesenchymal stem cells. *Biochem. J.* 427: 29-40.
- Kang, J., et al. 2010. An exquisite cross-control mechanism among endothelial cell fate regulators directs the plasticity and heterogeneity of lymphatic endothelial cells. *Blood* 116: 140-150.
- Manikandan, P., et al. 2011. Eugenol inhibits cell proliferation via NF κ B suppression in a rat model of gastric carcinogenesis induced by MNNG. *Invest. New Drugs* 29: 110-117.
- Herzog, B., et al. 2011. VEGF binding to NRP1 is essential for VEGF stimulation of endothelial cell migration, complex formation between NRP1 and VEGFR2, and signaling via FAK Tyr407 phosphorylation. *Mol. Biol. Cell* 22: 2766-2776.

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