neuropilin-2 (H-300): sc-5542



The Power to Ouestion

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: NRP2 (human) mapping to 2q33.3; Nrp2 (mouse) mapping to 1 C2.

SOURCE

neuropilin-2 (H-300) is a rabbit polyclonal antibody raised against amino acids 560-858 of neuropilin-2 of human origin.

PRODUCT

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

APPLICATIONS

neuropilin-2 (H-300) is recommended for detection of neuropilin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

neuropilin-2 (H-300) is also recommended for detection of neuropilin-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for neuropilin-2 siRNA (h): sc-36040, neuropilin-2 siRNA (m): sc-36041, neuropilin-2 shRNA Plasmid (h): sc-36040-SH, neuropilin-2 shRNA Plasmid (m): sc-36041-SH, neuropilin-2 shRNA (h) Lentiviral Particles: sc-36040-V and neuropilin-2 shRNA (m) Lentiviral Particles: sc-36041-V.

Molecular Weight of neuropilin-2: 116 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, HUV-EC whole cell lsyate: sc-364180 or COLO 320DM cell lysate: sc-2226.

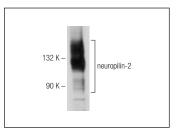
STORAGE

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-2 (H-300): sc-5542. Western blot analysis of neuropilin-2 expression in COLO 320DM whole cell lysate

SELECT PRODUCT CITATIONS

- Hamrah, P., et al. 2003. Novel expression of vascular endothelial growth factor receptor (VEGFR)-3 and VEGF-C on corneal dendritic cells. Am. J. Pathol. 163: 57-68.
- Kärpänen, T., et al. 2006. Functional interaction of VEGF-C and VEGF-D with neuropilin receptors. FASEB J. 20: 1462-1472.
- Cariboni, A., et al. 2007. Neuropilins and their ligands are important in the migration of gonadotropin-releasing hormone neurons. J. Neurosci. 27: 2387-2395.
- Gray, M.J., et al. 2008. Therapeutic targeting of neuropilin-2 on colorectal carcinoma cells implanted in the murine liver. J. Natl. Cancer Inst. 100: 109-120.
- Bae, D., et al. 2008. Metabolic stress induces the lysosomal degradation of neuropilin-1 but not neuropilin-2. J. Biol. Chem. 283: 28074-28080.
- Hernández-Montiel, H.L., et al. 2008. Semaphorins 3A, 3C, and 3F in mesencephalic dopaminergic axon pathfinding. J. Comp. Neurol. 506: 387-397.
- Hernández-Miranda, L.R., et al. 2011. Robo1 regulates semaphorin signaling to guide the migration of cortical interneurons through the ventral forebrain. J. Neurosci. 31: 6174-6187.
- 8. Rushing, E.C., et al. 2012. Neuropilin-2: a novel biomarker for malignant melanoma? Hum. Pathol. 43: 381-389.
- Joza, S., et al. 2012. Loss of semaphorin-neuropilin-1 signaling causes dysmorphic vascularization reminiscent of alveolar capillary dysplasia. Am. J. Pathol. 181: 2003-2017.



Try **neuropilin-2 (C-9):** sc-13117, our highly recommended monoclonal aternative to neuropilin-2 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **neuropilin-2 (C-9):** sc-13117.