# neuropilin (h2): 293T Lysate: sc-177623



The Power to Question

#### **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.

## **REFERENCES**

- Kolodkin, A.L., et al. 1993. The semaphorin genes encode a family of transmembrane and secreted growth cone guidance molecules. Cell 75: 1389-1399.
- Puschel, A.W., et al. 1995. Murine semaphorin D/collapsin is a member of a diverse gene family and creates domains inhibitory for axonal extension. Neuron 14: 941-948.
- Messersmith, E.K., et al. 1995. semaphorin II can function as a selective chemorepellent to pattern sensory projections in the spinal cord. Neuron 14: 949-959.
- 4. Dodd, J., et al. 1995. Axon guidance: a compelling case for repelling growth cones. Cell 81: 471-474.
- Wright, D.E., et al. 1995. The guidance molecule semaphorin III is expressed in regions of spinal cord and periphery avoided by growing sensory axons.
  Comp. Neurol. 361: 321-333.
- He, Z., et al. 1997. Neuropilin is a receptor for the axonal chemorepellent Semophorin III. Cell 90: 739-751.
- Kolodkin, A.L., et al. 1997. Neuropilin is a semaphorin III receptor. Cell 90: 753-762.
- 8. Curreli, S., et al. 2007. Polysialylated neuropilin-2 is expressed on the surface of human dendritic cells and modulates dendritic cell-T lymphocyte interactions. J. Biol. Chem. 282: 30346-30356.
- Yang, X.H., et al. 2007. Advancements in expression of vascular endothelial growth factor receptors in skin diseases. Zhongguo Yi Xue Ke Xue Yuan Xue Bao 29: 279-282.

## CHROMOSOMAL LOCATION

Genetic locus: NRP2 (human) mapping to 2q33.3.

#### **PRODUCT**

neuropilin (h2): 293T Lysate represents a lysate of human neuropilin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## **RESEARCH USE**

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

#### **APPLICATIONS**

neuropilin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive neuropilin antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

### **PROTOCOLS**

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com