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[Primary Antibody]

Rabbit Anti-Neuropilin 1 antibody

Catalog Number: SL23864R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Neuropilin 1
Immunogen:	KLH conjugated synthetic peptide derived from human Neuropilin 1 : 101-200/923 <Extracellular>
Purification:	affinity purified by Protein A
Concentration:	1mg/1ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Zebrafish,Sheep)
Predicted MW.:	100kDa
Subcellular Location:	The cell membrane Secretory protein
Background:	This gene encodes one of two neuropilins, which contain specific protein domains which allow them to participate in several different types of signaling pathways that control cell migration. Neuropilins contain a large N-terminal extracellular domain, made up of complement-binding, coagulation factor V/VIII, and meprin domains. These proteins also contains a short membrane-spanning domain and a small cytoplasmic domain. Neuropilins bind many ligands and various types of co-receptors; they affect cell survival, migration, and attraction. Some of the ligands and co-receptors bound by neuropilins are vascular endothelial growth factor (VEGF) and semaphorin family members. Several alternatively spliced transcript variants that encode different protein isoforms have been described for this gene. [provided by RefSeq, Oct 2011] **Function:** The membrane-bound isoform 1 is a receptor involved in the development of the cardiovascular system, in angiogenesis, in the formation of

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	certain neuronal circuits and in organogenesis outside the nervous system. It mediates the chemorepulsant activity of semaphorins. It binds to semaphorin 3A, The PLGF-2 isoform of PGF, The VEGF-165 isoform of VEGF and VEGF-B. Coexpression with KDR results in increased VEGF-165 binding to KDR as well as increased chemotaxis. It may regulate VEGF-induced angiogenesis. The soluble isoform 2 binds VEGF-165 and appears to inhibit its binding to cells. It may also induce apoptosis by sequestering VEGF-165. May bind as well various members of the semaphorin family. Its expression has an averse effect on blood vessel number and integrity. **Subunit:** Homodimer, and heterodimer with NRP2. Interacts with FER. Binds PLXNB1. **Subcellular Location:** Cell membrane; Single-pass type I membrane protein. Isoform 2: Secreted. **Tissue Specificity:** The expression of isoforms 1 and 2 does not seem to overlap. Isoform 1 is expressed by the blood vessels of different tissues. In the developing embryo it is found predominantly in the nervous system. In adult tissues, it is highly expressed in heart and placenta; moderately in lung, liver, skeletal muscle, kidney and pancreas; and low in adult brain. Isoform 2 is found in liver hepatocytes, kidney distal and proximal tubules. **Similarity:** Belongs to the neuropilin family. Contains 2 CUB domains. Contains 2 F5/8 type C domains. **Database links:** **Entrez Gene:** 8829 Human **Entrez Gene:** 18186 Mouse **Entrez Gene:** 246331 Rat Omim: 602069 Human **SwissProt:** O14786 Human **SwissProt:** Q5T7F3 Human **SwissProt:** P97333 Mouse **SwissProt:** Q6PAR3 Mouse **SwissProt:** Q9QWJ9 Rat **Unigene:** 131704 Human **Unigene:** 653996 Human **Unigene:** 271745 Mouse **Unigene:** 10815 Rat CD304 is a neuronal receptor considered to be expressed on numerous non-hematopoietic cells, including neurons, endothelial cells and Tumour cells. In vitro, CD1a+ dendritic cells derived from monocytes and hematopoietic

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	precursor cells are CD304 (BDCA-4/Neuropilin-1). Like CD303 (BDCA-2), the CD304 (BDCA-4) antigen is specifically expressed on plasmacytoid dendritic cells in human blood and bone marrow. Unlike CD303 (BDCA-2), CD304 (BDCA-4) is upregulated on cultured plasmacytoid dendritic cells and can be induced to express on cultured myeloid cells. In infected tonsils, CD304 (BDCA-4) is not only expressed on plasmacytoid dendritic cells but can also be detected on other cells, such as primary follicular B helper memory T cells.

[VALIDATION IMAGES]

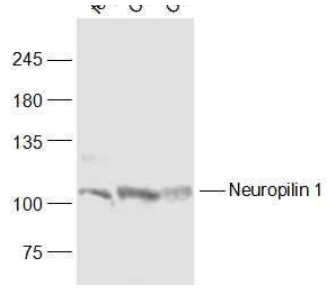


Figure 1. Sample: Fatal brain (Mouse) Lysate at 40 ug Cerebrum (Mouse) Lysate at 40 ug Cerebrum (Rat) Lysate at 40 ug Primary: Anti-Neuropilin 1 (SL23864R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 100 kD Observed band size: 105 kD

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