



Neuropilin-1 Monoclonal Antibody

Catalog No	YP-mAb-12764
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	NRP1
Immunogen	The antiserum was produced against synthesized peptide derived from human Neuropilin-1. AA range:476-525
Specificity	Neuropilin-1 Monoclonal Antibody detects endogenous levels of Neuropilin-1 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Neuropilin 1;NRP1;2H3F6;BDCA4;CD304;Neuropilin;Neuropilin-1;NRP; VEGF165R;Vascular endothelial cell growth factor 165 receptor;CD antigen CD304
Observed Band	120kD
Calculated Molecular Weight	120kD
Cell Pathway	[Isoform 2]: Secreted .; Mitochondrion membrane ; Single-pass type I membrane protein . Cell membrane ; Single-pass type I membrane protein . Cytoplasm .
Tissue Specificity	[Isoform 1]: The expression of isoforms 1 and 2 does not seem to overlap. 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 (PubMed:10688880, PubMed:9529250). Expressed in olfactory epithelium (at protein level) (PubMed:33082293). Expressed in the central nervous system, including olfactory related regions such as the olfactory tubercles and paraolfactory gyri (PubMed:33082293). ; [Isoform 2]: The expression of isoforms 1 and 2 does not seem to overlap. Found in liver hepatocytes, kidney distal and proximal tubules.



Function

function: The membrane-bound isoform 1 is a receptor involved in the development of the cardiovascular system, in angiogenesis, in the formation of 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., function: 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., similarity: Belongs to the neuropilin family., similarity: Contains 1 F5/8 type C domain., similarity: Contain

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],

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images

Western Blot analysis of various cells using
Neuropilin-1 Monoclonal Antibody