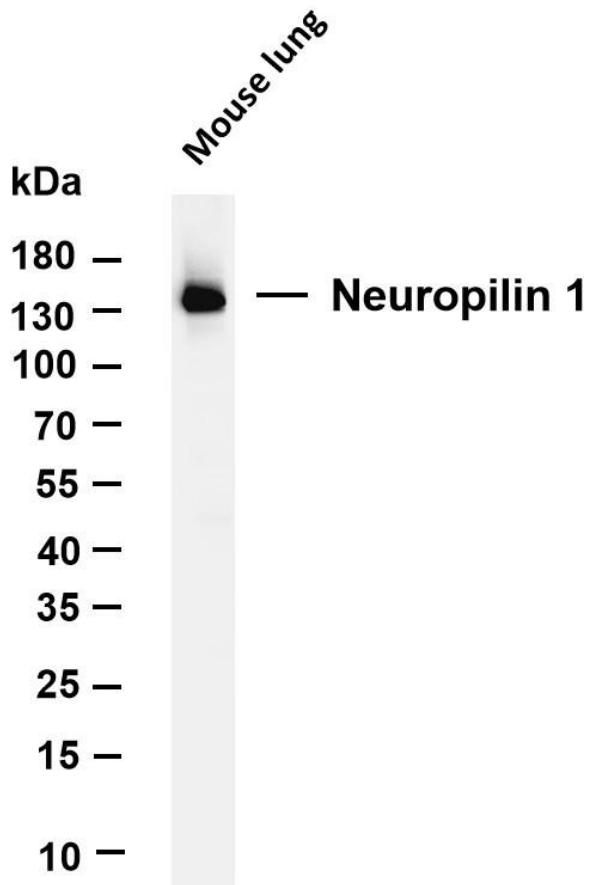
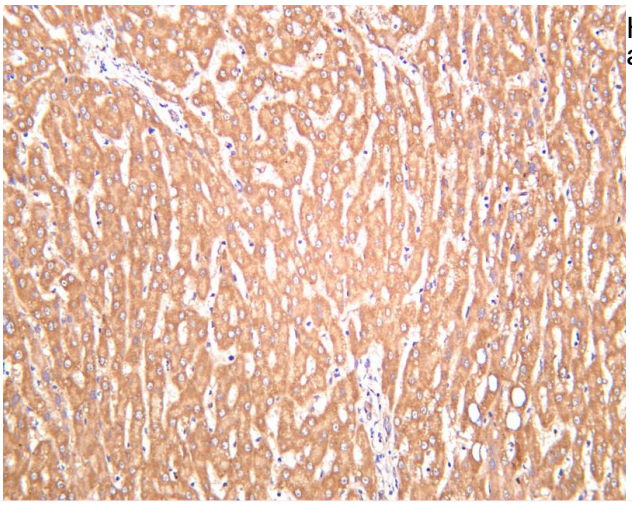
Neuropilin 1 Rabbit mAb

Catalog No	YP-rAb-18060
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	NRP1
Protein Name	Neuropilin-1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1000; WB 1:1000-5000; IF 1:200-1000; ELISA 1:5000-20000; IP 1:50-200 Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	NRP1 ; NRP ; VEGF165R ; Neuropilin-1 ; Vascular endothelial cell growth factor 165 receptor ; CD antigen CD304
Observed Band	135kD
Calculated Molecular Weight	103kD
Cell Pathway	Cytoplasmic, Membranous
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	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

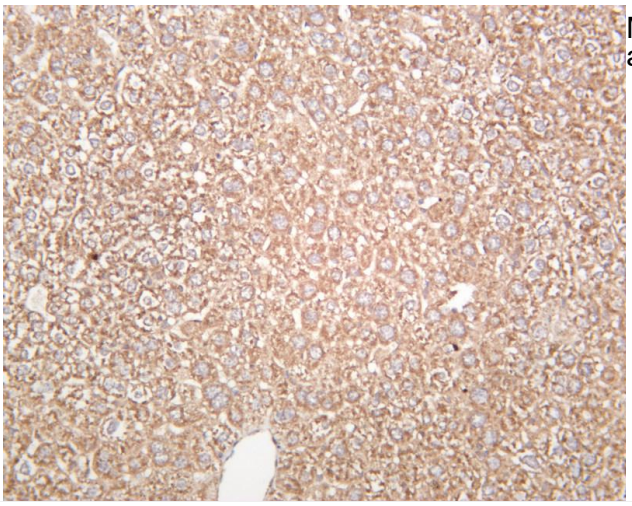
	isoform of PGF, The VEGF-165 isoform of VEGF and VEGF-B. Coexpression with KDR results in increased VEGF-165 binding to KDR as well as increased chemotaxis. It may regulate VEGF-induced angiogenesis.,The soluble isoform 2 binds VEGF-165 and appears to inhibit its binding to cells. It may also induce 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:Contains 1 MAM domain.,similarity:Contains 2 CUB domains.,similarity:Contains 2 F5/8 type C domains.,subunit:Heterodimer with NRP2 (Probable). Binds PLXNB1.,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.,
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.



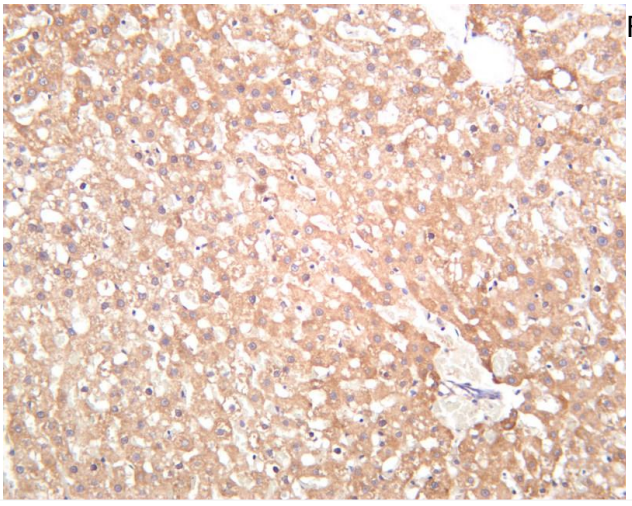
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Neuropilin 1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Mouse lung Predicted band size: 103kDa Observed band size: 135kDa



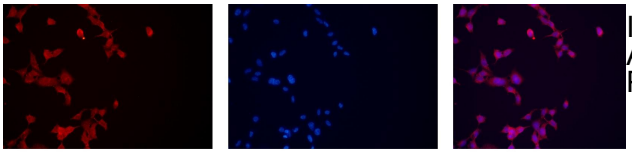
Human liver was stained with Anti-Neuropilin 1 rabbit antibody



Mouse liver was stained with anti-Neuropilin 1 rabbit antibody



Rat liver was stained with anti-Neuropilin 1 rabbit antibody



A B C

Immunofluorescence analysis of HEK293. Picture A:Neuropilin 1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B