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NRP1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP9071b

Specification

NRP1 Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	O14786
Other Accession	P97333
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
Antigen Region	**722-750**

NRP1 Antibody (C-term) - Additional Information

Gene ID 8829

Other Names
Neuropilin-1, Vascular endothelial cell growth factor 165 receptor, CD304, NRP1, NRP, VEGF165R

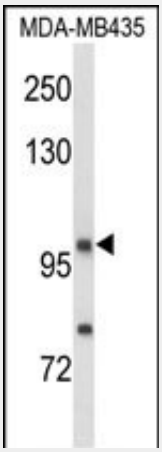
Target/Specificity
This NRP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 722-750 amino acids from the C-terminal region of human NRP1.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

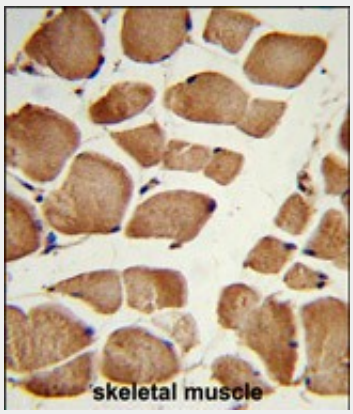
Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions



Western blot analysis of NRP1 Antibody (C-term) (Cat. #AP9071b) in MDA-MB435 cell line lysates (35ug/lane). NRP1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with NRP1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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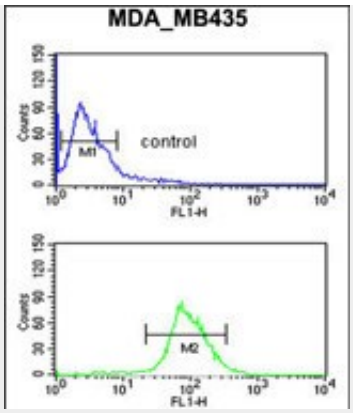
NRP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

NRP1 Antibody (C-term) - Protein Information

Name NRP1 (HGNC:8004)

Synonyms NRP, VEGF165R

Function
Cell-surface 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. Mediates the chemorepulsant activity of semaphorins (PubMed:9288753, PubMed:9529250, PubMed:10688880). Recognizes a C-end rule (CendR) motif R/KXXR/K on its ligands which causes cellular internalization and vascular leakage (PubMed:19805273). It binds to semaphorin 3A, the PLGF-2 isoform of PGF, the VEGF165 isoform of VEGFA and VEGFB (PubMed:9288753, PubMed:9529250, PubMed:10688880, PubMed:19805273). Coexpression with KDR results in increased VEGF165 binding to KDR as well as increased chemotaxis. Regulates VEGF-induced angiogenesis. Binding to VEGFA initiates a signaling pathway needed for motor neuron axon guidance and cell body migration, including for the caudal migration of facial motor neurons from rhombomere 4 to rhombomere 6 during embryonic development (By similarity).



NRP1 Antibody (C-term) (Cat. #AP9071b) flow cytometric analysis of MDA-MB435 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

NRP1 Antibody (C-term) - Background

NRP1 is a membrane-bound coreceptor to a tyrosine kinase receptor for both vascular endothelial growth factor (VEGF; MIM 192240) and semaphorin (see SEMA3A; MIM 603961) family members. NRP1 plays versatile roles in angiogenesis, axon guidance, cell survival, migration, and invasion.

NRP1 Antibody (C-term) - References

Hong,J.M., et.al., Exp. Mol. Med. (2010) In press Joslyn,G., et.al., Alcohol. Clin. Exp. Res. (2010) In press

Regulates mitochondrial iron transport via interaction with ABCB8/MITOSUR (PubMed:30623799).

Cellular Location
[Isoform 2]: Secreted

Tissue Location
[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).

NRP1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NRP1 Antibody (C-term) - Citations

- A novel function of p38-regulated/activated kinase in endothelial cell migration and tumor angiogenesis.