10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

NRP1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP9071b

Specification

NRP1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O14786

NRP1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 8829

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP9071b was selected from the C-term region of human NRP1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NRP1 Antibody (C-term) Blocking Peptide - Protein Information

Name NRP1 (HGNC:8004)

NRP1 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - References

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

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). 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) Blocking Peptide - Protocols

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

- Blocking Peptides