

NRP1
Purified Mouse Monoclonal Antibody
Catalog # AO2573a**Specification**

NRP1 - Product Information

Application	WB, IHC, ICC, E
Primary Accession	O14786
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	103.1kDa KDa

Immunogen

Purified recombinant fragment of human NRP1 (AA: 22-644) expressed in HEK293 cells.

Formulation

Purified antibody in PBS with 0.05% sodium azide

NRP1 - Additional Information

Gene ID 8829

Other Names

NP1; NRP; BDCA4; CD304; VEGF165R

Dilution

WB~~ 1/500 - 1/2000

IHC~~1:100~500

ICC~~N/A

E~~ 1/10000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

NRP1 is for research use only and not for use in diagnostic or therapeutic procedures.

NRP1 - 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:10688880, PubMed:9288753, PubMed:9529250). 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:10688880, PubMed:19805273, PubMed:9288753, PubMed:9529250). 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

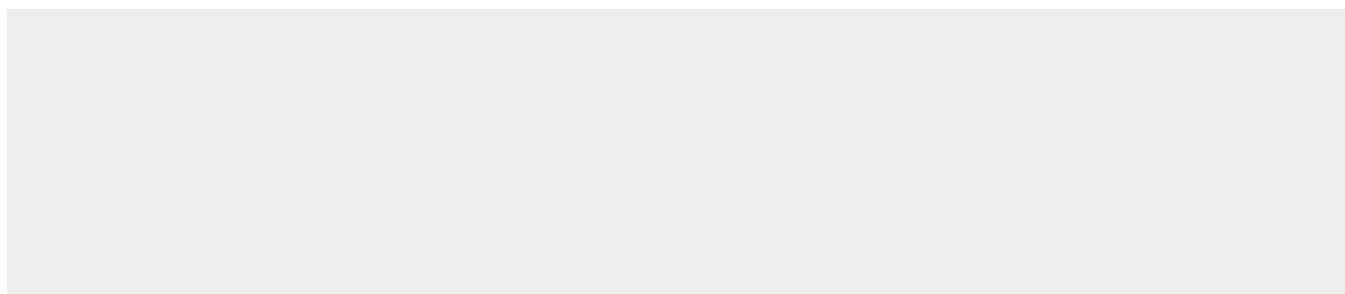
[Isoform 1]: The expression of isoforms 1 and 2 does not seem to overlap. Expressed in olfactory epithelium (at protein level) (PubMed:33082293). Expressed in fibroblasts (at protein level) (PubMed:36213313). Expressed by the blood vessels of different tissues In the developing embryo it is found predominantly 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 the central nervous system, including olfactory related regions such as the olfactory tubercles and paraolfactory gyri (PubMed:33082293)

NRP1 - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NRP1 - Images



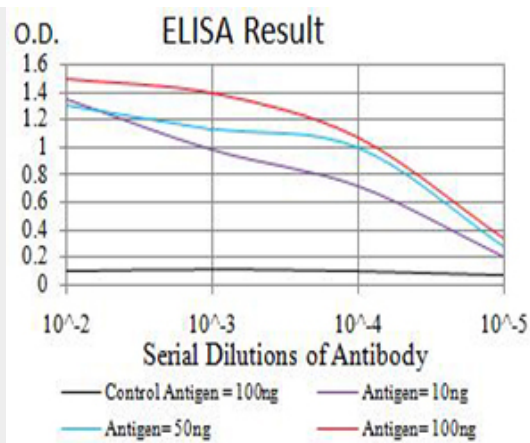


Figure 1: Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

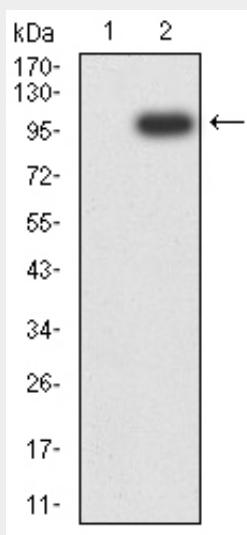


Figure 2: Western blot analysis using NRP1 mAb against HEK293 (1) and NRP1 (AA: 22-644)-hlgGFc transfected HEK293 (2) cell lysate.

NRP1 - References

1. Expert Opin Ther Targets. 2015 Feb;19(2):147-61.
2. Tumour Biol. 2014 Jul;35(7):6919-24.