

**Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab)  
Recombinant Antibody  
Catalog # APR10242**

**Specification**

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**Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) - Product Information**

Application	FC, E, FTA
Primary Accession	<a href="#">O14786</a>
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	145.22 KDa

**Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) - Additional Information**

**Target/Specificity**

NRP1 / VEGF165R / CD304

**Endotoxin**

< 0.001EU/ µg,determined by LAL method.

**Conjugation**

Unconjugated

**Expression system**

CHO Cell

**Format**

Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

**Storage**

-80°C for 2 years under sterile conditions □ -20°C for 1 year under sterile conditions □ Avoid repeated freeze-thaw cycles.

**Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) - 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:<a href="http://www.uniprot.org/citations/10688880" target="\_blank">10688880</a>, PubMed:<a href="http://www.uniprot.org/citations/9288753" target="\_blank">9288753</a>, PubMed:<a

<http://www.uniprot.org/citations/9529250> target="\_blank">9529250</a>). Recognizes a C-end rule (CendR) motif R/KXXR/K on its ligands which causes cellular internalization and vascular leakage (PubMed:<a href="http://www.uniprot.org/citations/19805273" target="\_blank">19805273</a>). It binds to semaphorin 3A, the PLGF-2 isoform of PGF, the VEGF165 isoform of VEGFA and VEGFB (PubMed:<a href="http://www.uniprot.org/citations/10688880" target="\_blank">10688880</a>, PubMed:<a href="http://www.uniprot.org/citations/19805273" target="\_blank">19805273</a>, PubMed:<a href="http://www.uniprot.org/citations/9288753" target="\_blank">9288753</a>, PubMed:<a href="http://www.uniprot.org/citations/9529250" target="\_blank">9529250</a>). 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:<a href="http://www.uniprot.org/citations/30623799" target="\_blank">30623799</a>).

### 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)

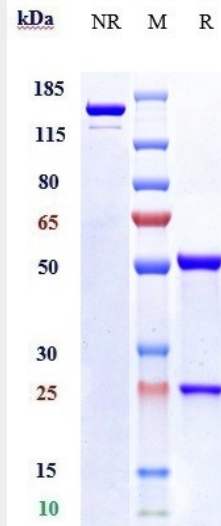
## Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) - Protocols

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

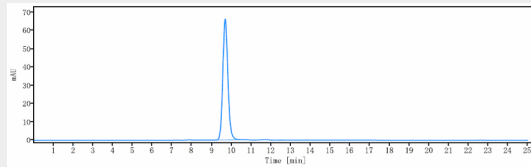
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) - Images

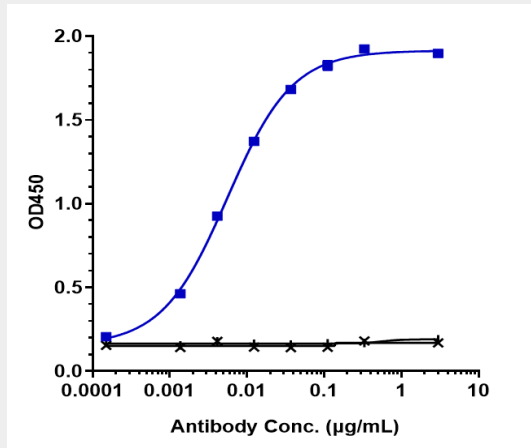




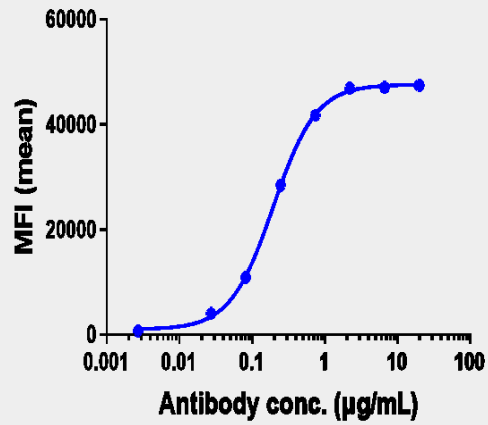
Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) is more than 100% ,determined by SEC-HPLC.



Immobilized human NRP1 His at 2 µg/mL can bind Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab)  $EC_{50}=0.005571$  µg/mL



Human NRP1 HEK293 cells were stained with Anti-NRP1 / VEGF165R / CD304 Reference Antibody (vesencumab) and negative control protein respectively, washed and then followed by PE and analyzed with FACS, EC302=0.1948 µg/mL