

Recombinant Neuropilin-1/NRP1/CD304 Monoclonal Antibody

catalog number: **AN300099P**

Note: Centrifuge before opening to ensure complete recovery of vial contents.

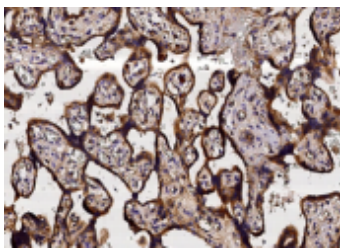
Description

Reactivity	Human
Immunogen	Recombinant Human Neuropilin-1 / NRP1 / CD304 protein
Host	Rabbit
Isotype	IgG
Clone	11G1
Purification	Protein A
Buffer	0.2 µm filtered solution in PBS

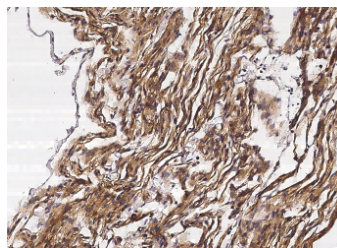
Applications Recommended Dilution

IHC-P	1:50-1:200
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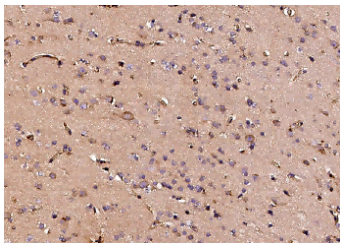
Data



Immunohistochemistry of paraffin-embedded human placenta using Neuropilin-1 / NRP1 / CD304 Monoclonal Antibody at dilution of 1:100.



Immunohistochemistry of paraffin-embedded human heart using Neuropilin-1 / NRP1 / CD304 Monoclonal Antibody at dilution of 1:100.



Immunohistochemistry of paraffin-embedded human brain using Neuropilin-1 / NRP1 / CD304 Monoclonal Antibody at dilution of 1:100.

Preparation & Storage

Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

For Research Use Only

Neuropilin is a type I transmembrane protein and the molecular mass is 120 kDa. Two homologs, Neuropilin-1 and Neuropilin-2, are identified. The primary structure of Neuropilin-1 and Neuropilin-2 is well conserved and is divided into four domains, CUB (a1/a2) domain, FV/FVIII (b1/b2) domain, MAM (c) domain, and (d) domain that contains a transmembrane and a short cytoplasmic region. Neuropilin-1 (NRP1) acts as a receptor for two different extracellular ligands, class 3 semaphorins, and specific isoforms of vascular endothelial growth factor. The functions of NRP1 and NRP2 have been extensively studied in neurons where they act in axon guidance and in endothelial cells where they promote angiogenesis and cell migration. Neuropilin-1 is likely to mediate contacts between the dendritic cells and the T lymphocytes via homotypic interactions and is essential for the initiation of the primary immune response. NRP1 is a co-receptor for VEGF receptor-2 (VEGFR2) that enhances the binding of VEGF165 to VEGFR2 and VEGF165-mediated chemotaxis. NRP1 expression is regulated in EC by tumor necrosis factor-alpha, the transcription factors dHAND and Ets-1, and vascular injury. NRP1 upregulation is positively correlated with the progression of various tumors. Overexpression of NRP1 in rat tumor cells results in enlarged tumors and substantially enhanced tumor angiogenesis. On the other hand, soluble NRP1 (sNRP1) is an antagonist of tumor angiogenesis.