# Neuropilin-1 Protein, Mouse (HEK293, Fc)

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| **Cat. No.:** | HY-P73312 |
| **Synonyms:** | Neuropilin-1, His; CD304; NRP1; NRPNP1; VEGF165R; BDCA4 |
| **Species:** | Mouse |
| **Source:** | HEK293 |
| **Accession:** | P97333 (M1-P856) |
| **Gene ID:** | 18186 |
| **Molecular Weight:** | Approximately 120 kDa |

## PROPERTIES

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| **Appearance** | Lyophilized powder. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. |
| **Endotoxin Level** | <1 EU/μg, determined by LAL method. |
| **Reconsititution** | It is not recommended to reconstitute to a concentration less than 100 μg/mL in $ddH_2O$. |
| **Storage & Stability** | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| **Shipping** | Room temperature in continental US; may vary elsewhere. |

## DESCRIPTION

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| **Background** | Neuropilin-1 Protein serves as a receptor crucial for the development of the cardiovascular system, angiogenesis, the formation of specific neuronal circuits, and organogenesis outside the nervous system. Functioning as a mediator of semaphorins' chemorepulsant activity, it recognizes the C-end rule (CendR) motif R/KXXR/K on its ligands, facilitating cellular internalization and vascular leakage. Neuropilin-1 binds to semaphorin 3A (SEMA3A), the PLGF-2 isoform of PGF, and the VEGF165 isoform of VEGFA and VEGFB. Coexpression with KDR enhances VEGF165 binding to KDR and increases chemotaxis. The protein regulates VEGF-induced angiogenesis and initiates a signaling pathway crucial for motor neuron axon guidance and cell body migration during embryonic development. Additionally, Neuropilin-1 plays a role in regulating mitochondrial iron transport through interaction with ABCB8/MITOSUR. It forms homodimers and heterodimers with NRP2, binds PLXNB1, and interacts with FER, VEGFA, and ABCB8/MITOSUR in mitochondria. |



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