

Neuropilin-1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P70401
Synonyms:	rMuNeuropilin-1, His; CD304; NRP1; NRPNP1; VEGF165R; BDCA4; Neuropilin-1
Species:	Mouse
Source:	HEK293
Accession:	P97333 (F22-P856)
Gene ID:	18186
Molecular Weight:	100-120 kDa

PROPERTIES

AA Sequence

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FRSDKCGGTI   KIENPGYLTSL   PGYPHSYHPS   EKCEWLIQAP
EPYQRIMINF   NPHFDLEDRD   CKYDYVEVID   GENEGRLLWG
KFCGKIAPSP   VVSSGPFLFI   KFVSDYETHG   AGFSIRYEIF
KRGPECSQNY   TAPTGVIKSP   GFPEKYPNSL   ECTYIIFAPK
MSEIILEFES   FDLEQDSNPP   GGMFCRYDRL   EIWDGFPFVG
PHIGRYCGQK   TPGRIRSSSG   VLSMVFYTDS   AIAKEGFSAN
YSVLQSSISE   DFKCMEALGM   ESGEIHSDQI   TASSQYGTNW
SVERSRLNYP   ENGWTPGEDS   YKEWIQVDLG   LLRFVTAVGT
QGAISKETKK   KYYVKTYRVD   ISSNGEDWIS   LKEGNKAIIF
QGNTNPTDVV   LGVFSKPLIT   RFVRIKPVSW   ETGISMRFEV
YGCKITDYPC   SGMLGMVSGL   ISDSQITASN   QADRNWMPEN
IRLVTSRTGW   ALPPSPHPYT   NEWLQVDLGD   EKIVRGV I IQ
GGKHRENKVF   MRKFKIAYS N   NGSDWKTIMD   DSKRKA KSFE
GNNNYDTP EL   RTFSPLSTRF   IRIYPERATH   SGLGLRMELL
GCEVEAPTAG   PTTPNGNPVD   ECDDDQANCH   SGTGDDDFQLT
GGTTVLATEK   PTIIDSTIQS   EFPTYGFNCE   FGWGSHTFC
HWEHDSHAQL   RWSVLTSKTG   PIQDHTGDGN   FIYSQADENQ
KGKVARLVSP   VVYSQSSAHC   MTFWYHMSG S   HVGTLRVKLR
YQKPEEYDQL   VWMVVGHQGD   HWKEGRVLLH   KSLKLYQVIF
EGEIGKGNLG   GIAVDDISIN   NHISQEDCAK   PTDLDKK NTE
IKIDETGSTP   GYEGEGEGDK   NISRKPGNVL   KTLDP
  
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Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

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**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.

Caution: Product has not been fully validated for medical applications. For research use only.

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