

Neuropilin-1 Active Protein | NRP1 active protein

Neuropilin-1 Protein, Mouse, Recombinant (ECD, His Tag)

CATALOG #
AAA258169

HOST
HEK293 Cells

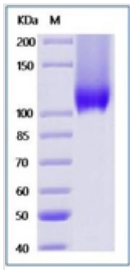
PRODUCT SYNONYMS

Neuropilin-1; Neuropilin-1 Protein; Mouse; Recombinant (ECD; His Tag); Mouse Neuropilin-1/NRP1 Protein (ECD; C530029I03 Protein; NP-1 Protein; NPN-1 Protein; Npn1 Protein; Nrp Protein; neuropilin 1; NRP1 active protein

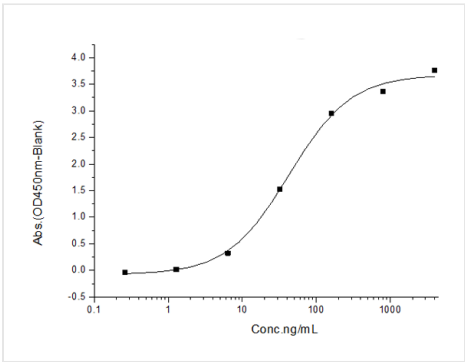
PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Phe22-Pro8 56
Species	Mouse
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Phe 22
Tag	C-His
Protein Construction	A DNA sequence encoding the mouse NRP1 (NP_032763.2)(Met1-Pro856) was expressed with a C-terminal polyhistidine tag.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized VEGF165 at 10ug/mL (100uL/well) can bind mNRP1h. The EC50 of mNRP1h is 30-120ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.

IMAGES



Application Data



SDS-PAGE

Measured by its binding ability in a functional ELISA. Immobilized VEGF165 can bind mNRP1h, the EC50 of mNRP1h is 30-120 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for NRP1 active protein	Background: Neuropilin is a type I transmembrane protein and the molecular mass is 120kDa. 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 NRPI 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.
References	Nakamura F, et al. (2002) Structural and functional relation of neuropilins. Adv Exp Med Biol. 515: 55-69.Romeo PH, et al. (2002) Neuropilin-1 in the immune system. Adv Exp Med Biol. 515: 49-54.Klagsbrun M, et al. (2002) The role of neuropilin in vascular and tumor biology. Adv Exp Med Biol. 515: 33-48.Staton CA, et al. (2007) Neuropilins in physiological and pathological angiogenesis. J Pathol. 212(3): 237-48.Bagri A, et al. (2009) Neuropilins in tumor biology. Clin Cancer Res. 15(6): 1860-4.

NCBI AND UNIPROT INFORMATION

NCBI GI #	244792700
NCBI GeneID	18186
NCBI Accession #	NP_032763.2
NCBI GenBank Nucleotide #	NM_008737.2
UniProt Accession #	P97333; Q6PAR3
Molecular Weight	103,000 Da
NCBI Official Full Name	neuropilin-1
NCBI Official Synonym Full Names	neuropilin 1
NCBI Official Symbol	Nrp1
NCBI Official Synonym Symbols	Nrp; NP-1; Npn1; NPN-1; C530029I03
NCBI Protein Information	neuropilin-1

UniProt Protein Name	Neuropilin-1
UniProt Gene Name	Nrp1
UniProt Synonym Gene Names	Nrp

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/hek293-nrp1-active-protein/neuropilin-1/258169>