Recombinant Human NRP1 Protein, His-tagged

Cat. No. NRP1-159H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human NRP1 Protein with His tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	Class 3 secreted semaphorin (Sema3A) is a chemorepellent that acts upon a wide variety of axons. As such, it induces a dramatic redistribution and depolymerization of actin filaments that results in growth cone collapse. Plexins are single pass, transmembrane signaling proteins encompassing Plexin A1, A2, A3 and A4. Plexins form a complex with neuropilin-1 and -2 and the cell adhesion protein L1 to form a functional semaphorin receptor. The GTPase Rnd1 binds to the cytoplasmic domain of Plexin A1 to trigger cytoskeletal collapse. In contrast, the GTPase RhoD blocks Rnd1-mediated Plexin A1 activation and repulsion of sympathetic axons by Sema3A. Neuropilin-1, a single pass transmembrane glycoprotein, was originally identified as a semaphorin receptor mediating axon growth cone collapse. In addition, neuropilin-1 is involved in axonal fasciculation, neuronal migration, dendritic guidance and repair of the adult nervous system. Neuropilin-1 is also an isoform-specific VEGF receptor on tumor and endothelial cells. Loss of neuropilin-1 function causes vascular remodeling and branching defects, which is compounded by additional loss of neuropilin-2 function.
Molecular Mass	~100 kDa

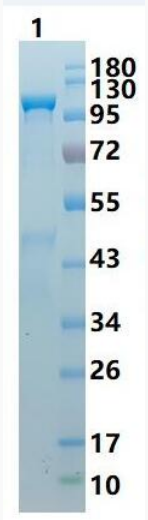
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AA Sequence	MFRNDKCGDTIKIESPGYLTSPGYPHSYHPSEKCEWLIQAPDPYQRIMINFNPHFDL EDRDCKYDYVEVFDGENENGHFRGKFCGKIAPPPVVSSGPFLFIKFVSDYETHGAG FSIRYEIFKRGPECSQNYTTPSGVIKSPGFPEKYPNSLECTYIVFVPKMSEIILEFESFD LEPDSNPPGGMFCRYDRLEIWDGFPDVGPHIGRYCGQKTPGRIRSSSGILSMVFYT DSAIAKEGFSANYSVLQSSVSEDFKCMEALGMESGEIHSDQITASSQYSTNWSAER SRLNYPENGWTPGEDSYREWIQVDLGLLRFVTAVGTQGAISKETKKKYYVKTYKIDV SSNGEDWITIKEGNKPVLFQGNTNPTDVVVAVFPKPLITRFVRIKPATWETGISMRFE VYGCKITDYPCSGMLGMVSGLISDSQITSSNQGDRNWMPENIRLVTSRSGWALPPA PHSYINEWLQIDLGEEKIVRGIIIQGGKHRENKVFMRKFKIGYSNNGSDWKMIMDDSK RKAKSFEGNNNYDTPELRTFPALSTRFIRIYPERATHGGLGLRMELLGCEVEAPTAG PTTPNGNLVDECDDDQANCHSGTGDDFQLTGGTTVLATEKPTVIDSTIQSEFPTYGF NCEFGWGSHKTFCHWEHDNHVQLKWSVLTSKTGPIQDHTGDGNFIYSQADENQK GKVARLVSPVVYSQNSAHCMTFWYHMSGSHVGTLRVKLRYQKPEEYDQLVWMAIG HQGDHWKEGRVLLHKSLKLYQVIFEGEIGKGNLGGIAVDDISINNHISQEDCAKPADL DKKNPEIKIDETGSTPGYEGEGEGDKNISRKPGNVLKTLDP
Purity	Transferred into competent cells and the supernatant was purified by NI column affinity chromatography and the purity is > 85% (by SDS-PAGE).
Notes	For research use only, not for use in diagnostic procedure.
Storage	Store at 4 centigrade short term. Aliquot and store at -20 centigrade long term. Avoid freeze-thaw cycles.
Storage Buffer	PBS, 4M Urea, pH7.4

GENE INFORMATION

Gene Name	NRP1 neuropilin 1 [Homo sapiens (human)]

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Official Symbol	NRP1
Synonyms	NRP1; neuropilin 1; neuropilin-1; CD304; NRP; VEGF165R; transmembrane receptor; vascular endothelial cell growth factor 165 receptor; NP1; BDCA4; DKFZp781F1414; DKFZp686A03134;
Gene ID	8829
mRNA Refseq	NM_001024628
Protein Refseq	NP_001019799
MIM	602069
UniProt ID	O14786
SDS-PAGE	

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