

## Product datasheet for **RC202952**

### Neuropilin 1 (NRP1) (NM\_001024629) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neuropilin 1 (NRP1) (NM_001024629) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Neuropilin 1
Synonyms:	BDCA4; CD304; NP1; NRP; VEGF165R
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC202952 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGAGGGGGCTGCCGCTCTGCGCCGTGCTCGCCCTCGTCTCGCCCCGGCCGGCGCTTTTCGCA  
 ACGATAAATGTGGCGATACTATAAAAAATTGAAAGCCCCGGGTACCTTACATCTCCTGTTATCCTCATT  
 TTATCACCCAAGTAAAAATGCGAATGGCTGATTAGGCTCCGGACCCATACCAGAGAATTATGATCAAC  
 TTCAACCCTCACTTCGATTTGGAGGACAGAGACTGCAAGTATGACTACGTGGAAGCTTCGATGGAGAAA  
 ATGAAAAATGGACATTTTAGGGGAAAGTTCTGTGAAAGATAGCCCTCCTCCTGTTGTGCTTCAGGGCC  
 ATTTCTTTTTATCAAATTTGCTCTGACTACGAAACACATGGTGCAGGATTTCCATACGTTATGAAATT  
 TTCAAGAGAGGTCCTGAATGTTCCGAACTACACAACACCTAGTGGAGTGATAAAGTCCCCGGATTCC  
 CTGAAAAATATCCCAACAGCCTTGAATGCACTTATATTGCTTTTGCCTAAAGATGTCAGAGATTATCCT  
 GGATTTGAAAGCTTTGACCTGGAGCCTGACTCAAATCCTCCAGGGGGGATGTTCTGTCGCTACGACCGG  
 CTAGAAATCTGGGATGGATCCCTGATGTTGGCCCTCACATTGGGCGTACTGTGGACAGAAAACACCAG  
 GTCGAATCCGATCCTCATCGGGCATTCTCTCCATGGTTTTTACACCGACAGCGGATAGCAAAAGAAGG  
 TTTCTCAGCAAATACAGTGTCTTGAGAGCAGTGTCTCAGAAGATTTCAAATGTATGGAAGCTCTGGGC  
 ATGGAATCAGGAGAAATTCATTCTGACCAGATCACAGTCTTCCAGTATAGCACCAACTGGTCTGCAG  
 AGCGCTCCCGCTGAACCTACCCTGAGAAATGGGTGGACTCCCGGAGAGGATTCCTACCGAGAGTGGATA  
 GGATAGACTTGGCCTTCTGCGCTTTGTACGGCTGTGGGACACAGGGCGCCATTTCAAAGAAACCAAG  
 AAGAAATATTATGTCAAGACTTACAAGATCGACGTTAGCTCCAACGGGGAAGACTGGATCACCATAAAAG  
 AAGGAAACAAACCTGTTCTTTTACAGGAAACACCAACCCACAGATGTTGTGGTTGCAGTATCCCCAA  
 ACCACTGATAACTCGATTTGTCCGAATCAAGCCTGCAACTGGGAACTGGCATATCTATGAGATTTGAA  
 GTATACGTTGCAAGATAACAGATTATCCTTGCTCTGGAATGTTGGGTATGGTGTCTGGACTTATTTCTG  
 ACTCCCAGATCACATCATCCAACCAAGGGGACAGAAACTGGATGCCTGAAAACATCCGCCTGGTAACCAG  
 TCGCTCTGGTGGGCACTTCCACCCGCACCTCATTCTACATCAATGAGTGGCTCCAAATAGACCTGGGG  
 GAGGAGAAGATCGTGAGGGGCATCATCATTAGGGTGGGAAGCACCGAGAGAACAAGGTGTTATGAGGA  
 AGTTCAAGATCGGTACAGCAACAACGGCTCGGACTGGAAGATGATCATGGATGACAGCAACGCAAGGC  
 GAAGTCTTTTGGGGCAACAACAACTATGATACACCTGAGCTGCGGACTTTTCCAGCTCTCTCCACGGGA  
 TTCATCAGGATCTACCCGAGAGAGCCACTCATGGCGGACTGGGGCTCAGATGGAGCTGCTGGGCTGTG  
 AAGTGGAAAGTGGCACCCTGTGCTGGCCACAGAAAAGCCACGGTTCATAGACAGCACCATAACAATCAGG  
 TATCAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC202952 protein sequence  
 Red=Cloning site Green=Tags(s)

MERGLPLLCAVLALVLPAGAFRNDKCGDITIKIESPYL TSPGYPHSYHPSEKCEWLIQAPDPYQRIMIN  
 FNPFDLEDRDCKYDYVEVFDGENENGFHFRGKFCGKIAPPPVSSGPFLFIKFSVDYETHGAGFSIRYEI  
 FKRGPESQNYTTPSGVIKSPGFPEKYPNSLECTYIVFAPKMSEIILEFESFDLEPDSNPPGGMFCRYDR  
 LEIWDGFPDVGPHIGRYCGQKTPGRIRSSGILSMVFYTDIAIAKEGFSANYSVLQSSVSEDFKMEALG  
 MESGEIHSQDITASSQYSTNWSAERSRLNYPENWTPGEDSYREWIQVDLGLLRFVAVGTQGAISKETK  
 KKYVVKTYKIDVSSNGEDWITIKEGNKPVLFQGNTPDVTAVVAVFPKPLITRFVRIKPATWETGISMRFE  
 VYGCKITDYPCGMLGMVSLISDSQITSSNQDRNWPENIRLVTSRSGWALPPAPHSYINELQIDLG  
 EEKIVRGI IQGGKHRENKVFMRKFKIGYSNNGSDWKMIMDDSKRKA KSFEGNNNYDPELRTFPALSTR  
 FIRIYPERATHGGLGRMELLGCEVEGGTTVLATEKPTVIDSTIQSGIK

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6669\\_g02.zip](https://cdn.origene.com/chromatograms/mk6669_g02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001024629

**ORF Size:** 1827 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

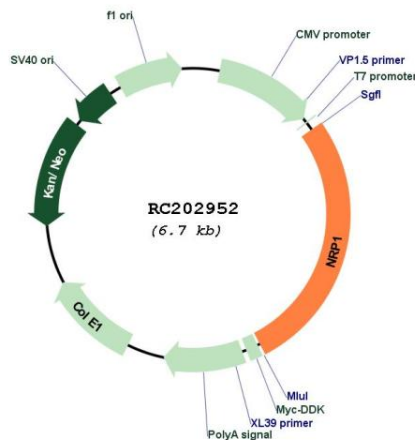
**RefSeq:** [NM\\_001024629.2](#), [NP\\_001019800.1](#)

**RefSeq Size:** 2373 bp

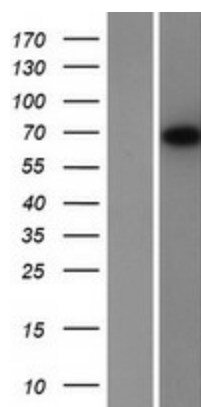
**RefSeq ORF:** 1830 bp  
**Locus ID:** 8829  
**UniProt ID:** [O14786](#)  
**Cytogenetics:** 10p11.22  
**Protein Families:** Druggable Genome, Secreted Protein, Transmembrane  
**Protein Pathways:** Axon guidance  
**MW:** 68.3 kDa

**Gene Summary:** This gene encodes one of two neuropilins, which contain specific protein domains which allow them to participate in several different types of signaling pathways that control cell migration. Neuropilins contain a large N-terminal extracellular domain, made up of complement-binding, coagulation factor V/VIII, and meprin domains. These proteins also contains a short membrane-spanning domain and a small cytoplasmic domain. Neuropilins bind many ligands and various types of co-receptors; they affect cell survival, migration, and attraction. Some of the ligands and co-receptors bound by neuropilins are vascular endothelial growth factor (VEGF) and semaphorin family members. This protein has also been determined to act as a co-receptor for SARS-CoV-2 (which causes COVID-19) to infect host cells. [provided by RefSeq, Nov 2020]

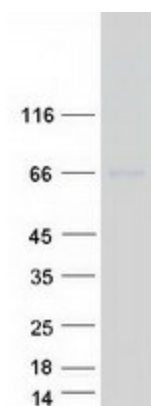
### Product images:



Circular map for RC202952



Western blot validation of overexpression lysate (Cat# [LY422522]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202952 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NRP1 protein (Cat# [TP302952]). The protein was produced from HEK293T cells transfected with NRP1 cDNA clone (Cat# RC202952) using MegaTran 2.0 (Cat# [TT210002]).