

## Product datasheet for **RC220706**

### **NRP2 (NM\_003872) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NRP2 (NM_003872) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NRP2
Synonyms:	NP2; NPN2; PRO2714; VEGF165R2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC220706 representing NM\_003872  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGATATGTTTCTCTCACCTGGGTTTTCTTAGCCCTCTACTTTTCAAGACACCAAGTGAGAGGCCAAC  
 CAGACCCACCGTGCAGAGTTCGTTTGAATTCAAAGATGCTGGCTATATCACCTCTCCCGTTACCCCA  
 GGACTACCCCTCCACCAGAAGTGCAGTGGATTGTTTACGCCCCGAACCAACCAAGAAGATTGCCTC  
 AACTTCAACCCTCACTTTGAAATCGAGAAGCAGACTGCAAGTATGACTTTATCGAGATTCGGGATGGG  
 ACAGTGAATCCGCAGACCTCCTGGGCAAACTGTGGAAACATCGCCCCGCCACCATCATCTCCTCGGG  
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 ATCTTCAAGACAGGCTCTGAAGATTGCTCAAAAACTTACAAGCCCCAACGGGACCATCGAATCTCCTG  
 GGTTCCTGAGAAGTATCCACACAACCTGGACTGCACCTTACCATCCTGGCCAAACCAAGATGGAGAT  
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 GATTGGCTGGACATCTGGGATGGCATTCCACATGTTGGCCCCCTGATTGGCAAGTACTGTGGGACAAAA  
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 GGATGGCTTCTCTGCGGTTACTACCTGGTCCACCAAGAGCCACTAGAGAAGTTTTCAGTGAATGTTCT  
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 GCTCCACGCTCCACTGCTGACAAGGTTTGTAGAAATCCGCCCTCAGACCTGGCACTCAGGTATCGCCCTC  
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 GGTGAGCAGCCGCTCGGGCTGGTCCCTCGAATCCCTCAGGCCAGCCCGGTGAGGAGTGGCTTCAGGTA  
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 GGATGCGGCTGGAGGTGCTGGGCTGTGACTGGACAGACTCCAAGCCACGGTAGAGACGCTGGGACCCAC  
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 GGGTCTGGCGCCCCCTCGACCGACAAAGAAAAGAGCTGGCTGTACACCCTGGATCCCATCTCATACCA  
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 CTTAAGCACAAAGTCAAGATGAACCACCAAAAGTCTGCTCCGAGGCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC220706 representing NM\_003872  
 Red=Cloning site Green=Tags(s)

MDMFPLTWVFLALYFSRHQVRGQDPDPPCGGRLNSKDAGYITSPGYPDYPSHQNCEWIVYAPEPNQKIVL  
 NFNPHFEIEKHDCYDFIEIRDGSEADLLGKHCGNIAPPTIISSGSMLYIKFTSDYARQGAGFSLRYE  
 IFKTGSEDCSKNFTSPNGTIESPGFPEKYPHNLDCTFTTILAKPKMEIILQFLIFDLEHDPLQVGEQDCKY  
 DWLDIWDGIPHVGLIGKYCGTKTPSELRSSTGILSLTFHTDMAVAKDGFSAARYLVHQEPLNFQCNVP  
 LGMESGRIANEQIASSTYSDDRWTQQSRLHGDDNGWTPNLDNSKEYLQVDLRLTMLTAIATQGAISR  
 ETQNGYVYKSYKLEVSTNGEDWMVYRHGKNHKVFQANNDATEVVLNKLHAPLLTRFVIRPQTWHSIAL  
 RLELFGRVTDAPCSNMLGMLSGLIADSIASSTQEYLWSPAARLVSSRSGWFRIPQAQPGEEWLQV  
 DLGTPKTVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQDPRTPQPKLFEKNMHDYTPDI  
 RRFDPIPAQYVRYPERWSPAGIGMRLEVLGCDWTDKPTVETLGPVKSEETTPYPTTEEEATECGENC  
 SFEDDKDLQLPSGFNCNFDLEEPCGWMDHAKWLRTTWASSSPNDRTFPDDRNLRLQSDSQREGQYA  
 RLISPPVHLPRSPVCMFQYQATGGRGVALQVREASQESKLLWVIREQGGGEWKHGRIILPSYDMEYQI  
 VFEVIGKGRSGEIAIDDIRISTDVPLENCMEPISAFVDIPEIHEREGYEDEIDDEYEVDWSNSSSATS  
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 LKHVKVMNHQKCCSEA

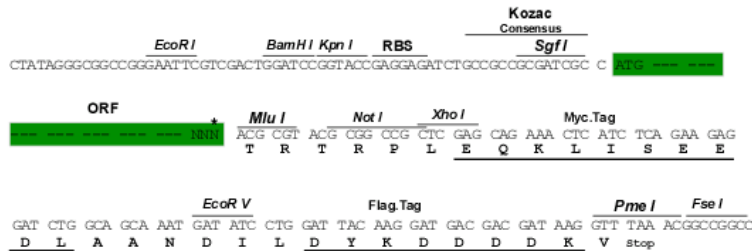
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6163\\_b07.zip](https://cdn.origene.com/chromatograms/mk6163_b07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



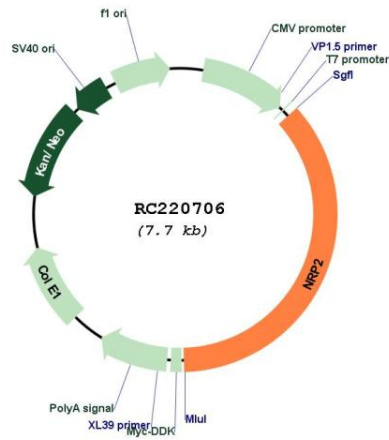
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_003872

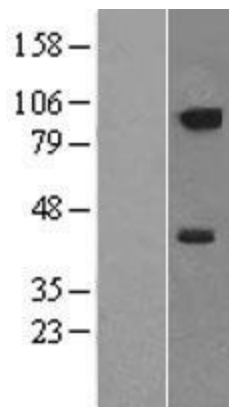
**ORF Size:** 2778 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_003872.3</a>
<b>RefSeq Size:</b>	6656 bp
<b>RefSeq ORF:</b>	2781 bp
<b>Locus ID:</b>	8828
<b>UniProt ID:</b>	<a href="#">O60462</a>
<b>Cytogenetics:</b>	2q33.3
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>MW:</b>	104.26 kDa
<b>Gene Summary:</b>	This gene encodes a member of the neuropilin family of receptor proteins. The encoded transmembrane protein binds to SEMA3C protein {sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3C} and SEMA3F protein {sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3F}, and interacts with vascular endothelial growth factor (VEGF). This protein may play a role in cardiovascular development, axon guidance, and tumorigenesis. Multiple transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC220706



Western blot validation of overexpression lysate (Cat# [LY401275]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220706 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).