

## Product datasheet for RC224819

### Plexin B1 (PLXNB1) (NM\_002673) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Plexin B1 (PLXNB1) (NM_002673) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Plexin B1
Synonyms:	PLEXIN-B1; PLXN5; SEP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224819 representing NM_002673 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGCTCTGGGCCAGCTCTTCTCCAGGCTCTCTGGGCCGGGTGGTCTCACCTCCAGCCCTTC  
CACCAACTGCATTCACTCCCAATGGCACGTATCTGCAGCACCTGGCAAGGGACCCACCTCAGGCACCT  
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**Protein Sequence:** >RC224819 representing NM\_002673  
 Red=Cloning site Green=Tags(s)

MPALGPALLQALWAGWVLTQLPPTAFTPNGTYLQHLARDPTSGTLYLGATNFLFQLSPGLQLEATVST  
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 TEVAYIEYDVNSDCAQLPVDTLDAYPCGSDHTPSMASRVPLEATPILEWPGIQLTAVAVTMEDGHTIAF  
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 KKEFTDLMTMTDLTSDLLGSGIPFLDYKVAERIFFPGHRESPLHRDLGVPESSRPTVEQGLGQLSNLL  
 NSKLFLTKFIHTLESQRTFSARDRAYVASLLTVALHGKLEYFTDILRTLSDLVAQYVAKNPKMLRRTTE  
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 LNALLAVGPGAGEAQGVVVKVLDCTISQAKEKMLDQLYKGVPLTQRDPRTLDVEWRSGVAGHLILSDE  
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 QAQQHGISDQDTIHIWKTNSLPLRFWINIKNPQFVFDVQTSNDMDAVLLVIAQTFMDACTLADHKLGRD  
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 QIITALEEDGTAQKMLGYRLQQIAAAVENKVTDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8044\\_f05.zip](https://cdn.origene.com/chromatograms/mk8044_f05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

**ACCN:** NM\_002673

**ORF Size:** 6405 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

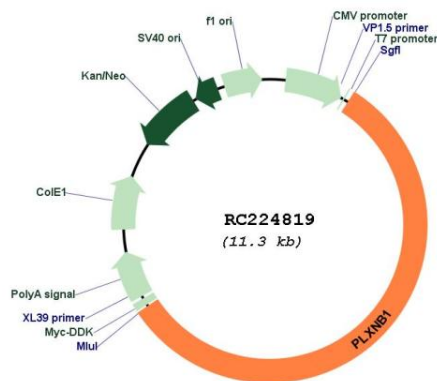
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

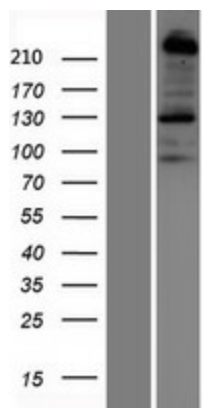
**Reconstitution Method:**

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.

RefSeq:	<u>NM_002673.4</u>
RefSeq Size:	7097 bp
RefSeq ORF:	6408 bp
Locus ID:	5364
UniProt ID:	<u>O43157</u>
Cytogenetics:	3p21.31
Protein Families:	Druggable Genome
Protein Pathways:	Axon guidance
MW:	232.1 kDa
Gene Summary:	Receptor for SEMA4D (PubMed:19843518, PubMed:20877282, PubMed:21912513). Plays a role in GABAergic synapse development (By similarity). Mediates SEMA4A- and SEMA4D-dependent inhibitory synapse development (By similarity). Plays a role in RHOA activation and subsequent changes of the actin cytoskeleton (PubMed:12196628, PubMed:15210733). Plays a role in axon guidance, invasive growth and cell migration (PubMed:12198496). [UniProtKB/Swiss-Prot Function]

**Product images:**


Circular map for RC224819



Western blot validation of overexpression lysate (Cat# [LY419177]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224819 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).