

Product datasheet for RC222057

Plexin A1 (PLXNA1) (NM_032242) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Plexin A1 (PLXNA1) (NM_032242) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Plexin A1 |
| Synonyms: | NOV; NOV; PLEXIN-A1; PLXN1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC222057 representing NM_032242 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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TGTGGGCTGAGGCAGGCTTGCCAGGGCAGGGGGTTACAGCCCCCTTCGCACCTTCTCGGCCAG
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GTCCTCAGCCCCAACACCAGTACCTCTACGCCATGACCGAGAAGCAGGTGACGCGGGTGCCTGTGGAGA
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Protein Sequence:

>RC222057 representing NM_032242
 Red=Cloning site Green=Tags(s)

MPLPPRSLQVLLLLLLLLLLLLPGMWAEAGLPRAGGSQPPFRFASASDWGLTHLVVHEQTGEVYVAVNR
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 LRLDDLKFLGEPHHRKEHYLSSVQEAGSMAGVLIAGPPGQQAQKLVGTPIDGKSEYFPTLSSRRLMANE
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 KIVRLCVDDPKFYSYVEFPICGEQAGVEYRLVQDAYLSRPGRALAHQLGLAEDEDVLFVFAQQGKNRVK
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 MEYATGVLKQLSDLIEKNLESKNHPKLLLRRESVAEKMLTNWFTFLYKFLKECAGEPLFMLYCAIKQ
 QMEKGPIDAITGEARYSLSEDKLIRQQIDYKTLTLNVCNPNENAPEVPVKGLDCDVTVQAKEKLLDAAY
 KGVPSYQRPKAADMLEWRQGRMARIILQDEDVTTKIDNDWKRLNLAHYQVTDGSSVALVPKQTSAYNI
 SNSSTFTKSLSRYESMLRTASSPDSLRSRTPMITPDLESGTKLWHLVKNHDHLDQREGDRGSKMVSEIYL
 TRLLATKGTQKQFVDDL FETIFSTAHRSALPLAIKYMDFLDEQADKHQIHDADVRHTWKSNCPLRFW
 VNVIKNPQFVFDIHKNSITDAQLSVVAQTFMDSCTSEHKLGKDSPSNKLKYAKDIPNYKSWVERYYADI
 AKMPAISDQDMSAYLAEQSRLHL SQFNMSALHEIYSYITKYKDEILAALAEKDEQARRQLRSKLEQVVD
 TMLSS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3195_f07.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_032242

ORF Size: 5688 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 or by calling 301.340.3188 option 3 for pricing and delivery.

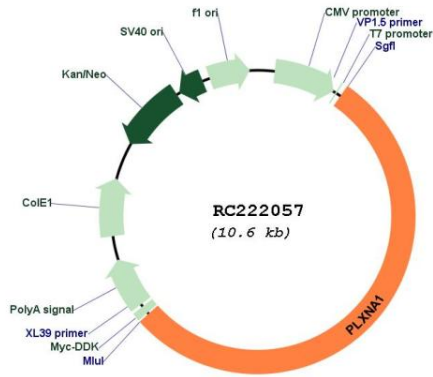
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

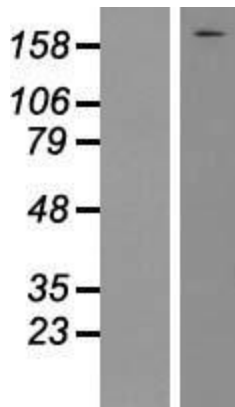
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

| | |
|-------------------------------|---|
| Reconstitution Method: | <ol style="list-style-type: none">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: | <u>NM_032242.3, NP_115618.3</u> |
| RefSeq Size: | 9071 bp |
| RefSeq ORF: | 5691 bp |
| Locus ID: | 5361 |
| UniProt ID: | <u>Q9UIW2</u> |
| Cytogenetics: | 3q21.3 |
| Protein Families: | Druggable Genome, Transmembrane |
| Protein Pathways: | Axon guidance |
| MW: | 211.1 kDa |
| Gene Summary: | Coreceptor for SEMA3A, SEMA3C, SEMA3F and SEMA6D. Necessary for signaling by class 3 semaphorins and subsequent remodeling of the cytoskeleton. Plays a role in axon guidance, invasive growth and cell migration. Class 3 semaphorins bind to a complex composed of a neuropilin and a plexin. The plexin modulates the affinity of the complex for specific semaphorins, and its cytoplasmic domain is required for the activation of down-stream signaling events in the cytoplasm (By similarity).[UniProtKB/Swiss-Prot Function] |

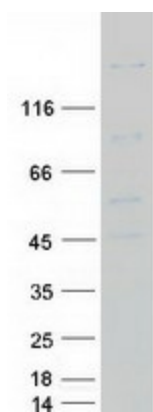
Product images:



Circular map for RC222057



Western blot validation of overexpression lysate (Cat# [LY410263]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222057 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PLXNA1 protein (Cat# [TP322057]). The protein was produced from HEK293T cells transfected with PLXNA1 cDNA clone (Cat# RC222057) using MegaTran 2.0 (Cat# [TT210002]).