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Product datasheet for MC229672

Plxnb2 (NM_001284506) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Plxnb2 (NM_001284506) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Plxnb2
Synonyms:	Debt; plexin-B2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

Fully Sequenced ORF:

>MC229672 representing NM_001284506
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTCTGCCACTCTGGGCCCTGACCTTTCTAGGTCTCACGGGCCTAGGGTTGAGCCTGCGGTCCCGAA
AGCCGGAGAGTTTCCGCAGTGAGACAGAGCTGAACCACCTGGCTGTGGATGAGGTCACAGGTGTGGTGTA
TGTCGGGGCAGTGAACGCGCTCTACCAGCTGAGTGCCGACCTGCACGTCCAGCAGCACGTGGTCACAGGC
CCCTTCATGGATAACAAGAAGTGCACACCACCCATTGAGGCCAGCCAGTGCCACGAAGCGGTGCTCACTG
ACAACTTCAACCAGCTGCTGCTGCTCGACCCACCGGGGAAACGCCTGGTGGAGTGCGGCAGCCTCTTCAA
GGGCATCTGTGCCCTGCGCGCCATGAGCAACATCTCGGTGCGCCTCTTCTACGAGGATGGCAGCGGCGAG
AAGTCCTTCGTGGCCAGCAATGACGAGAGAGTGGCCACCGTGGGGCTGGTGACCTCCACGCGCCCCGACG
GCGAGCGCGTGCTGTTTGTGGGCAAAGGCAATGGGCCGCACGACAATGGTATCATCGTGAGCACCCGCCT
GCTGGACAGGGCTGAGGGCCGGGAGGCCTTTGAGGCCTACTCTGACCACACCACCTTCAAGGCCGGCTAC
CTGTCCACGAATACTCAGCAGTTTGTCGCAGCCTTTGAGGATGATTTCTATGTCTTCTTCGTCTTTAACC
ATCAAGACAAGCATCCTGCTAAGAACCGCACGCTGCTGGCGCGCATGTGCAAAGACGACCCCTCCTACTA
TTCCTATGTAGAGATGGACCTGCAGTGTCAGGATCCCAGTGACCCCCAAGACTCTGCCTTTGGCACCTGC
CTAGCCGCTTCTGTAGCCACATCGGGTGCTGGCAGAGCACTTTATGCTGTCTTCAGCAGAGATGGCCGGA
GCACTGGGGGACCTGGCGCGGGCCTCTGTGTGTTCCCGCTAGATAAAGTCCGTGAGAAGATAGAAGCCAA
CCGTAACGCCTGCTACACAGGTGCCCGAGAGGCAGGCCGCACTATCTTCTACAAGCCCTTCCACGGAGAA
ATCCAGTGTGGCGGCCATCTGATAGGTGCCAGCGAGAGCTTCCCATGCGGCTCGGAGCATCTGCCCTATC
CACTGGGCAGTCGTGATGGACTCGTCGCCACAGCCGTGCTGCACCGCGGGGGCCTGAATCTGACAGCAGT
GACAGTAACTGCCGAGAATGACCACACTGTTGCGTTCCTGGGCACCTCAGATGGCCGGATCCTTAAGGTG
TACCTTGCTCCAGACGGCACTTCTGCAGAGTATGGTTCTATCCCAGTAGACATCAATAAGAAAATCAAGC
AGGACCTGGCACTGTCTGGAAACCTGTCCAGTCTGTATGCTATGACCCAGGACAAGGTGTTCCGGCTCCC
AGTACAAGAATGCCTGAGCTATGTAACCTGCGCTCAGTGTCGTGACTCCCAAGATCCCTACTGTGGCTGG
TGTGTCATCGAGGGACGATGCACCAGGAAGTCCGAGTGCTCACGGGCCGAGGAAACCGGACACTGGCTGT

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GGAGCCGGGAGAAGTCCTGTGTGGCCATCACTGATGCCTTTCCACAGAACATGAGCCGGCGGGCCCAAGG
AGAGGTACGCCTGTCTGTCAGCCCCCTGCCCACCCTGACTGAGGACGATGAGTTACTGTGCCTCTTTGGT
GACTCACCACCCCACCCTGCCCGGGTAGAGGACGATACCGTCATCTGTAATTCCCCAAGCAGCATCCCTA
GTACACCGCCAGGCCAAGACCATGTTGACGTGAGCATCCAGCTCCTCTTAAAAAGCGGCAGTGTCTTCCT
CACCTCCCACCAGTATCCCTTCTATGACTGCCGTGAGGCCATGAGCCTGGTGGAGAACCTGCCGTGCATC
TCTTGTGCTAGCAACCGCTGGACTTGCCAATGGGACCTGCAGTACTACGAGTGTCGGGAGGCTTCGCCCA
ACCCAGAGGAGGGAATCATACGTGCCCACATGGAGGACAACTGCCCCCAGTTCCTGGCCCCTGACCCTTT
GGTCATCCCCATGAACCATGAGACAGAGGTGACCTTCCAGGGCAAGAACTTGGAGACTGTGAAGGTTTCT
TCCCTGTATGTGGGCAGTGAGCTGCTGAATTTTGAAGAGACTGTGACCATGCATGAATCAGACACCTTCT
CTTTTAGGACCCCAAAGCTATCCCATGATGGTAATGAGACACTGCCTCTTCACCTGTATGTTAAGTCCTT
TGGCAAGAACATTGACAGCAAGCTACAAGTGACTCTCTACAACTGCTCCTTTGGCCGCAGTGACTGTAGC
CTGTGTCTGGCTGCCGATCCTGCCTACAGGTGTGTGTGGTGCCGTGGGCAGAACCGGTGCGTGTACGAAG
CTCTGTGCAGCAATGTCACTTCTGAGTGCCCACCACCAGTTATCACTAGGATCCAGCCTGAGACGGGCCC
GCTGGGTGGGGGCATCCTGGTCACTATCCATGGGTCCAATCTGGGTGTCAAAGCAGATGACGTCAAGAAG
ATAACTGTGGCTGGCCAGAACTGTGCCTTTGAACCAAGAGGGTACTCCGTATCCACCCGGATTGTGTGTG
CAATTGAGGCTTCGGAGATGCCCTTCACAGGAGGCATTGAGGTGGATGTTAATGGAAAACTCGGCCATTC
ACCGCCACACGTCCAGTTCACTTATCAACAACCCCAGCCTCTCAGTGTGGAGCCACGACAGGGGCCACAG
GCAGGTGGCACCACATTGACCATCAATGGCACTCACCTGGACACAGGCTCCAAGGAGGATGTGCGGGTGA
CACTCAATGACGTCCCTTGTGAAGTGACAAAGTTTGGAGCACAGCTACAGTGTGTCACAGGTCAACAGTT
GGCTCCAGGCCAGGTGACACTAGAAATCTACTATGGGGGCTCCAGAGTGCCCAGCCCCGGCATCTCTTTC
ACCTACTGCGAGAACCCCATGATACGAGCCTTTGAGCCATTGAGAAGCTTTGTCAGTGGTGGCCGGAGCA
TCAACGTTACTGGCCAGGGCTTCAGCCTCATCCAGAAGTTTGCCATGGTTGTCATCGCTGAGCCCTTGCG
GTCCTGGAGGCGGCGGCGGCGGGAGGCTGGAGCCCTGGAGCGTGTGACGGTCGAGGGCATGGAGTACGTG
TTCTACAACGACACCAAGGTCGTCTTCTTGTCTCCTGCTGTCCCCGAAGAGCCCGAGGCTTACAACCTCA
CCGTGCTGATACGGATGGACGGTCACTGTGCCCCGCTCAGGACCGAAGCCGGAGTCTTTGAGTATGTGGC
AGACCCCACCTTTGAGAACTTCACGGGTGGCGTCAAAAAGCAGGTCAACAAGCTCATCCACGCCCGGGGA
ACCAATCTGAACAAAGCCATGACTCTGGAGGAGGCAGAGGCATTTGTGGGTGCTGAGCGTTGCATTATGA
AGACGCTGACCGAGACGGACCTGTACTGCGAGCCCCCAGAGGTGCAGCCTCCACCCAAGCGGCGGCAGAA
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GTGGAGTACGACACGCGTGCGAGTGACGTGCCGCTCAGTCTCATCCTGCCTCTGGTCATGGTACCCATGG
TGTTTATCATCGTGGTCTCCATCTACTGCTACTGGAGGAAGAGCCAGCAGGCCGAGCGCGAGTACGAGAA
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ATGATCGAGATGGAGGACCAGACGAATGACGTGCATGAGGCAGGCATCCCCACGCTGGACTACAAGACCT
ACACCGACCGCGTATTCTTCCTGCCATCCAAGGATGGTGACAAGGATGTGATGATCACCGGCAAGCTAGA
CATCCCTGAGTCACGGCGGCCCATTGTGGAGCAAGCCCTCTACCAGTTCTCCAACCTGCTTAATAGCAAG
TCCTTCCTCATCAATTTCATCCACACCCTGGAGAATCAGCGTGAGTTCTCAGCTCGGGCCAAGGTCTACT
TTGCATCACTGCTGACTGTGGCCCTGCACGGGAAGCTGGAGTACTACACGGACATCATGCGCACGCTCTT
CCTGGAGCTCATGGAGCAGTATGTGGTGGCCAAGAACCCCAAGCTAATGCTGCGCAGGTCTGAGACAGTG
GTGGAGAGGATGCTGTCCAACTGGATGTCCATCTGTCTGTACCAGTACCTCAAGGATAGTGCAGGGGAGC
CTCTCTACAAGCTCTTCAAGGCCATCAAACACCAGGTGGAAAAGGGGCCCGTGGATGCTGTGCAGAAGAA
GGCCAAGTACACCCTCAATGACACAGGCCTGCTCGGGGACGATGTTGAGTATGCGCCTCTGACCGTGAGC
GTGATTGTTCAGGATGAAGGGATCGATGCCATCCCGGTTAAGGTCCTCAACTGTGACACCATCTCTCAGG
TCAAAGAGAAGATCATCGACCAAGTGTACCGTACTCAGCCCTGCTCCTGCTGGCCCAAGCCAGACAGTGT
GGTGCTTGAATGGCGTCCTGGGTCCACGGCCCAGATTCTGTCTGACTTGGACCTTACCTCCCAGCGGGAG
GGCCGGTGGAAGCGCATCAACACCCTGATGCACTACAACGTCCGGGATGGAGCCACCCTCATCCTGTCTA
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AGAGGAAAACCGCGTGTGGCACTTGGTGCGGCCAACAGATGAGGTAGATGAAGGCAAGTCCAAGCGCGGC
AGCATGAAGGAGAAAGAGCGGACTAAGGCCATCACAGAGATCTACCTGACGCGGCTACTCTCCGTCAAGG
GCACACTGCAGCAGTTTGTGGACAACTTCTTCCAAAGCGTGCTGGCGCCTGGGCATGCGGTGCCACCCGC
CGTCAAGTACTTCTTCGATTTCTTGGACGAGCAGGCAGAGAAGCATGACATCCGAGATGAGGATACCATC
CATATCTGGAAAACCAACAGTTTACCACTTCGGTTCTGGGTGAACATCCTGAAGAACCCTCATTTCATCT
TTGATGTCCACGTCCACGAAGTGGTGGACGCCTCCCTGTCAGTCATCGCACAGACCTTCATGGACGCCTG

TACTCGCACGGAGCACAAGCTGAGCCGAGACTCTCCCAGCAACAAGCTGTTGTATGCTAAGGAGATCTCT
ACCTACAAGAAGATGGTGGAGGACTACTACAAGGGCATCAGACAGATGGTGCAGGTCAGCGACCAGGACA
TGAATACGCACTTGGCAGAGATTTCCCGGGCTCACACAGACTCCCTGAACACACTCGTGGCCCTACACCA
GCTCTACCAATACACACAGAAGTACTATGATGAGATCATCAATGCTCTGGAGGAGGACCCTGCAGCCCAA
AAGATGCAACTGGCCTTCCGCCTACAGCAGATTGCTGCTGCGCTTGAGAATAAGGTTACAGACCTCTGA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-RsrII
ACCN:	NM_001284506
Insert Size:	5529 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	NM_001284506.1, NP_001271435.1
RefSeq Size:	6469 bp
RefSeq ORF:	5529 bp
Locus ID:	140570
UniProt ID:	B2RXS4
Cytogenetics:	15 44.68 cM

Gene Summary: Cell surface receptor for SEMA4C, SEMA4D and SEMA4G that plays an important role in cell-cell signaling (PubMed:17554007). Plays a role in glutamatergic synapse development and is required for SEMA4A-mediated excitatory synapse development (PubMed:29981480). Binding to class 4 semaphorins promotes downstream activation of RHOA and phosphorylation of ERBB2 at 'Tyr-1248' (PubMed:17554007). Required for normal differentiation and migration of neuronal cells during brain corticogenesis and for normal embryonic brain development (PubMed:19948886). Regulates the migration of cerebellar granule cells in the developing brain (PubMed:21122816). Plays a role in RHOA activation and subsequent changes of the actin cytoskeleton (By similarity). Plays a role in axon guidance, invasive growth and cell migration (By similarity). May modulate the activity of RAC1 and CDC42 (PubMed:21966369). Down-regulates macrophage migration in wound-healing assays (in vitro) (PubMed:21966369).[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (3) differs in the 5' UTR, compared to variant 1. Variants 1-3 encode the same protein.