

Product datasheet for **MG226705**

Plxnb2 (NM_001159521) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Plxnb2 (NM_001159521) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Plxnb2
Synonyms:	Debt; plexin-B2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226705 representing NM_001159521 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGGCTCTGCCACTCTGGGCCCTGACCTTTCTAGGTCTCACGGGCCTAGGGTTGAGCCTGCGGTCCCGAA
 AGCCGGAGAGTTTCCGCAGTGAGACAGAGCTGAACCACTGGCTGTGGATGAGGTACAGGTGTGGTGTA
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AGCGGACCGACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG226705 representing NM_001159521

Red=Cloning site Green=Tags(s)

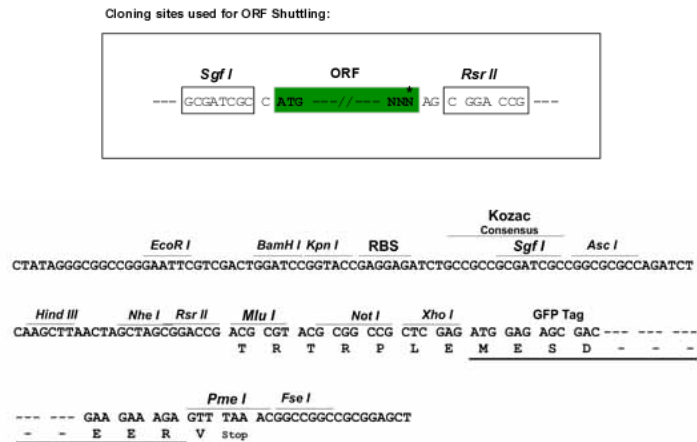
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KSFVASNDERVATVGLVTSTRPDGERVLFVKGNGPHDNGIIVSTRLLDRAEGREAF EAYS DHTTFKAGY
LSTNTQQFVA AFEDDFYVFFVFNHQDKHPAKNRTLLARMCKDDPSYYSYVEMDLQCQDPSDPQDSAFGTC
LAASVATSGAGRALYAVFSRDGRSTGGPGAGLCVFLDKVREKIEANRNACYTGAREAGRTIFYKPFHGE
IQCGGHLIGASESFP CGSEHLPYPLGSRDGLVATAVLHRGGLNL TAVTVTAENDHTVAFLGTS DGRILKV
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DSPPHPARVEDDTVICNSPSSIPSTPPGQDHVDVSIQLLLKSGSVFLTSHQYPFYDCREAMSLVENLPCI
SCASNRTWCQWDLQYYECREASPNPEEGIRAHMEDNCPQLAPDPLVIPMNHETEVT FQGNLETVKVS
SLYVGSSELLNFEETVTMHESDTFSFRTPKLSHDGNETLPLHLYVKSFGKNIDSKLQVTLYNCSFGRSDCS
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GRWKRINTLMHYNVRDGATLILSKVGVSQQPEDSQDLPGERHALLEENRVVHLVRPTDEVDEGKSKRG
SMKEKERTKAITEIYLTRLLSVKGTLLQQFVDNFFQSVLAPGHAVPPAVKYFFDFLDEQA EKHDIRDEDTI
HIWKTNSLPLRFWVNILKNPHFIFDVHVHEVVDASLSVIAQT FMDACTRTEHKL SRDSPSNKLLYAKEIS
TYKKMVEDYYKIRQMVQVSDQDMNTHLAEISRAHTDSLNTLVALHQLYQYTQKYDEIINAL EEDPAAQ
KMQLAFLRLQQIAAALENKVTDL

SGPTRRRLE – GFP Tag – V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:



ACCN:	NM_001159521
ORF Size:	5526 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.

RefSeq: [NM_001159521.1](#), [NP_001152993.1](#)

RefSeq Size: 6432 bp

RefSeq ORF: 5529 bp

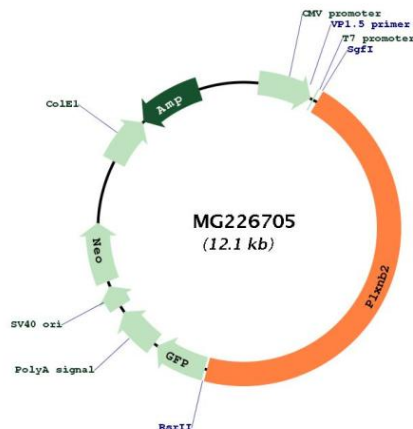
Locus ID: 140570

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]

Product images:



Circular map for MG226705