

## Product datasheet for **MG211242**

### Unc5b (BC057560) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Unc5b (BC057560) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Unc5b
Synonyms:	6330415E02Rik; A630020F16; D10Bwg0792e; Unc5h2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG211242 representing BC057560  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGGCCCGAGCGGGGTGCGGAGCGGCTGCTGCTGGCGCTGCTGCTTTGCTGGGATCCGACACCGA  
 GCCTAGCAGGCGTTGACTCTGCTGGCCAGGTGCTCCAGACTCCTACCCATCAGCCCTGCGGAGCAGCT  
 GCCGTAATTCCTATTGGAGCCACAGGACGCTACATCGTAAAGAACAAGCCAGTGGAACTGCACTGCAGA  
 GCCTTCCCTGCCACGAGATCTACTTCAAGTGAATGGCGAGTGGGTGAGCCAGAATGACCACGTACAC  
 AGGAGAGCCTGGATGAGGCCACAGGCTTGGGGTGCAGAGGTGCAGATCGAGGTGTACGGCAGCAAGT  
 GGAGGAACTTTCGGGCTCGAGGACTACTGGTCCAGTGCCTGGCTGGAGCTTTCGGGAACTACCAAG  
 AGTCGCCGAGCCTACATCCGATTGCTACTTGCAGCAAGAATTTGACCAGGAGCCTCTGGCCAAGGAGG  
 TACCCTTGGATCATGAGGTCTTCTGCAGTGCCGCCACCGGAGGGAGTGCCTGTGGCTGAGGTGGAATG  
 GCTCAAGAATGAAGATGTATTGACCCGCTCAGGACACTAATTCCTGCTCACCATTGACCACAACCTC  
 ATCATCCGCCAGGCGCCCTCTCAGACACGGCCAACTACACCTGTGTGGCCAAGAATATCGTGGCCAAGC  
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 CTGTTCCAATCGCTGTGGCCGAGGCTGGCAGAAGCGTACTCGGACCTGCACCAATCCAGCCCCACTCAAT  
 GGAGGGCGCTTCTGTGAGGGACAGGCTTCCAGAAGACAGCTTGCACCACCGTGTGCCAGTGGATGGAG  
 CGTGGACCGAGTGGAGCAAGTGGTCTGCCTGCAGCACAGAGTGTGCGCACTGGCGCAGCCGCGAGTGCAT  
 GGCACCCGCCACCCAGAACGGAGGCCGTGACTGCAGCGGGACGCTACTTGACTCCAAGAAGTGCAGTGT  
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 CTGCTGGGTGTCTCCCGCGGGCACGTACCCAGGCGATTTCTCCCGGGACACCCATTTCTGCACCTGC  
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 AAGGTTCCAGACAGTATTGAGCCCTCGGTGACCTGTGGGCCACAGGCTACTCCTGTGCCGCCCTGT  
 CGTCTCACCGTGCACCCACTGTGCTGAAGTCAATCGCTGGAGACTGGATCTTTCAGCTCAAGACCCAGGCC  
 CATCAGGGCCACTGGGAGGAGGTGGTACCTTGGATGAGGAGACCCTCAACACACCCCTGCTACTGCCAGC  
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 TCGCTCTGCAGTCAAGCGGCTCCAGTGGCCATCTTCGCCCCAGCCCTCTGCACCTCCCTGGAGTATAGC  
 CTCAGGGTCTACTGTCTGGAGGACACCTGTAGCACTGAAGGAGTCTGGAGCTGGAGAGGACTCTGG  
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 AGTTCACCTGTAAGGTCTGCGTGCAGGAGTCAAGGGGAAGGCCAGATTTTCCAGCTGCACACAACGTT  
 GGCCGAGACGCTGCTGGCTCCCTGGATGCTCTGCTCTGCCCGGGCAATGCCATCACCACCCAGCTG  
 GGACCCTATGCCTTCAAGATACCCTGTCCATCCGCCAAAAGTCTGCAGCAGCCTGGACGCCCCCAACT  
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 CAAAGCTAGTCCACAGGTGTATCTTAGACCTCTGGGAAGCTCGGCAACAGGATGACGGGGACCTCAAC  
 AGCCTGGCCAGTGCCTTGGAGGAGATGGCAAGAGTGAAGTGTGGTGGTACCATGGCCACAGATGGCGATT  
 GC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >MG211242 representing BC057560  
 Red=Cloning site Green=Tags(s)

MRARSGVRSALLLALLLCWDPTPSLAGVDSAGQVLPDSYSPAPAEQLPYFLLPEQDAYIVKNKPVELHCR  
 AFPATQIYFKCNGEWVSQNDHVTQESLDEATGLRVREVQIEVSRQQVEELFGLLEDYWCQCVAWSSSGTTK  
 SRRAYIRIAYLRKNFDQEPLAKEVPLDHEVLLQCRPPEGVPAVEWLKNEDVIDPAQDTNFLTIDHNL  
 IIRQARLSDTANYTCVAKNIVAKRRSTTATVIVVYVNGGWSWAEWSPCSNRCGRGWQKRTRTCTNPAPLN  
 GGAFCEGQAFQKTACTTVCVPGAWTEWSKWSACSTECAHWRSRECMAPPPQNGGRDCSGTLLDSKNCTD  
 GLCVLTLETSGDVALYAGLVVAVFVVAVLMAVGVIVYRRNCRDFDITDSSAALTGGFHPVNFKTARP  
 NNPQLLHPSAPPDLTASAGIYRGPVYALQDSADKIPMTNSPLLDPLPSLKIKVYNSSTIGSGSGLADGAD  
 LLGVLPPGTYPGDFSRDTHFLHRSASLGSQHLLGLPRDPSSSVSGTFGCLGGRLSLPGTGVSLLPNGA  
 IPQKGFDLYLHINKAESTLPLSEGSQTVLSPSVTCGPTGLLLCRPVVLVPHCAEVIAGDWIFQLKTQA  
 HQGHWEVVLTDEETLNTPCYCQLEAKSCHILLDQLGTYVFMGESYSRSVAVKRLQLAIFAPALCTSLEYS  
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 VWNGSQRALHCTFTLERHSLASTEFTCKVCRQVEGEGQIFQLHTTLAETPAGSLDALCSAPGNAITTLQL  
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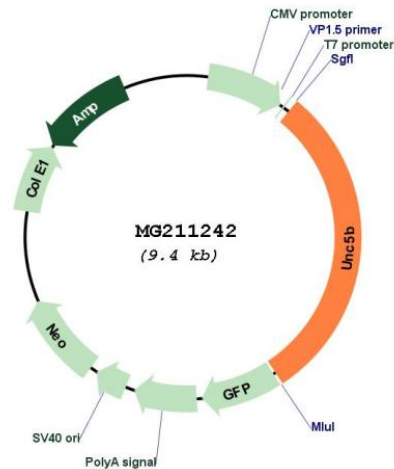
TRTRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** BC057560

**ORF Size:** 2802 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:** [BC057560.1](#)

**RefSeq Size:** 3672 bp

**RefSeq ORF:** 2804 bp

**Locus ID:** 107449

**Cytogenetics:** 10 31.52 cM

**Gene Summary:**

Receptor for netrin required for axon guidance. Mediates axon repulsion of neuronal growth cones in the developing nervous system upon ligand binding. Axon repulsion in growth cones may be caused by its association with DCC that may trigger signaling for repulsion (By similarity). Functions as netrin receptor that negatively regulates vascular branching during angiogenesis (PubMed:15510105). Mediates retraction of tip cell filopodia on endothelial growth cones in response to netrin (PubMed:15510105). It also acts as a dependence receptor required for apoptosis induction when not associated with netrin ligand. Mediates apoptosis by activating DAPK1. In the absence of NTN1, activates DAPK1 by reducing its autoinhibitory phosphorylation at Ser-308 thereby increasing its catalytic activity (By similarity).[UniProtKB/Swiss-Prot Function]