

Product datasheet for **RG235142**

SEMA5B (NM_001256348) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA5B (NM_001256348) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SEMA5B
Synonyms:	SEMAG; SemG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG235142 representing NM_001256348 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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CAACGGTCTTCCCAACAGC

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG235142 representing NM_001256348

Red=Cloning site Green=Tags(s)

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CGTNAFSPMCTSRQVGNLSRTIEKINGVARCPYDPRHNSTAVISSQGELYAATVIDFSGRDPAIYRSLGS
GPPLRTAQYNSKWLNEPNFVAAYDIGLFAYFFLRENAVEHDCGRTVYSRVARVCKNDVGGRFLEDTWTT
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GVEFKTCNPEGCEVRRNTPWTPWL PVNVTQGGARQEQRFRFTCRAPLADPHGLQFRRRTETRTCPADG
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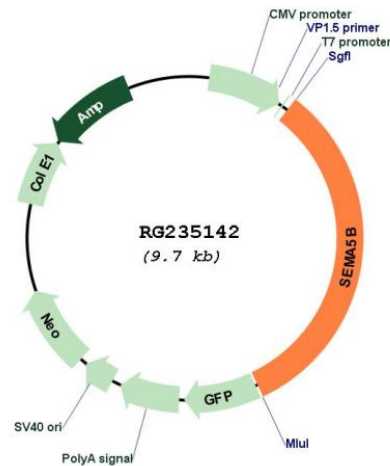
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TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_001256348

ORF Size: 3171 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:	<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.
RefSeq:	<u>NM_001256348.1, NP_001243277.1</u>
RefSeq Size:	4523 bp
RefSeq ORF:	3174 bp
Locus ID:	54437
Cytogenetics:	3q21.1
Protein Families:	Transmembrane
Protein Pathways:	Axon guidance
Gene Summary:	This gene encodes a member of the semaphorin protein family which regulates axon growth during development of the nervous system. The encoded protein has a characteristic Sema domain near the N-terminus, through which semaphorins bind to plexin, and five thrombospondin type 1 repeats in the C-terminal region of the protein. The protein product may be cleaved and exist as a secreted molecule (PMID: 19463192). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]