

## Product datasheet for **RG216038**

### Semaphorin 3E (SEMA3E) (NM\_012431) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Semaphorin 3E (SEMA3E) (NM_012431) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Semaphorin 3E
Synonyms:	coll-5; M-SEMAH; M-SemaK; SEMAH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG216038 representing NM\_012431  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCATCCGCGGGCACCATTATCACCTTGCTCCTGTGGGGTTACTTACTGGAGCTTTGGACAGGAGGTC  
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 CAAGTGAAGTATGCCAACCCCTCAGAAAAGAAGCTCCGTTCCAACCTGAGCATTACCGCTGCCAGG  
 CACACGCTGGACTCC

AC**GGGCCGCT**TCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG216038 representing NM\_012431  
Red=Cloning site Green=Tags(s)

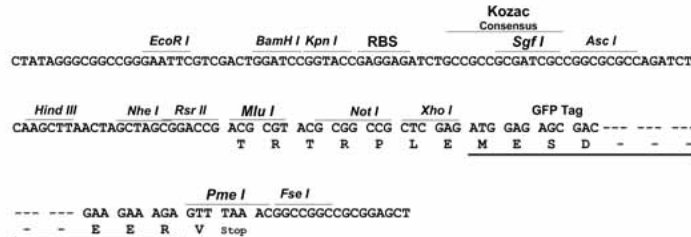
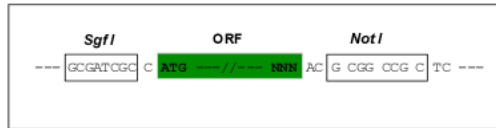
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 VNKWSTFLKARLVCSVPGMNGIDTYFDELEDVFLLPTRDHKNPVIIFGLFNNTSNIFRGHAICVYHMSSIR  
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 RVVKMDLGLLFLRLHKSDAGTYFCQTVESFVHTVRKITLEVVEEEKVEDMFNKDDEDRHHRMPCPAQS  
 SISQGAKPWYKEFLQLIGYSNFQRVEEYCEKVWCTDRKRKLLKMSPSKWKYANPQEKLLRSKPEHYRLPR  
 HTLDS

TRPLE - GFP Tag - V

**Restriction Sites:** SgfI-NotI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



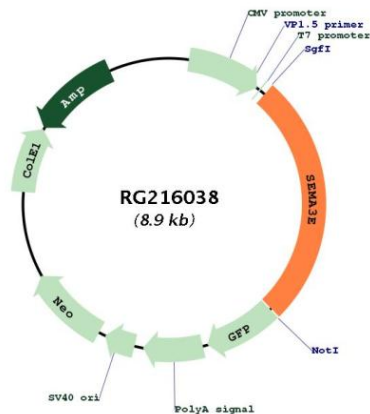
**ACCN:** NM\_012431

**ORF Size:** 2325 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_012431.3</a>
<b>RefSeq Size:</b>	6474 bp
<b>RefSeq ORF:</b>	2328 bp
<b>Locus ID:</b>	9723
<b>UniProt ID:</b>	<a href="#">O15041</a>
<b>Cytogenetics:</b>	7q21.11
<b>Domains:</b>	Sema, ig, PSI
<b>Protein Families:</b>	Secreted Protein
<b>Protein Pathways:</b>	Axon guidance

**Gene Summary:**

Semaphorins are a large family of conserved secreted and membrane associated proteins which possess a semaphorin (Sema) domain and a PSI domain (found in plexins, semaphorins and integrins) in the N-terminal extracellular portion. Based on sequence and structural similarities, semaphorins are put into eight classes: invertebrates contain classes 1 and 2, viruses have class V, and vertebrates contain classes 3-7. Semaphorins serve as axon guidance ligands via multimeric receptor complexes, some (if not all) containing plexin proteins. This gene encodes a class 4 semaphorin. This gene encodes a class 3 semaphorin. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2010]

**Product images:**


Circular map for RG216038