

## Product datasheet for **RG233014**

### SEMA4F (NM\_001271661) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA4F (NM_001271661) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SEMA4F
Synonyms:	M-SEMA; m-Sema-M; PRO2353; S4F; SEMAM; SEMAW
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG233014 representing NM\_001271661  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCGGCCTCTGCTGCGCGGCCCGCCGGGTCCCGGGCAGCCTACAGCCTCGCCCTTCCCGCTACTGC  
 TGCTGGCGGTGCTGAGCGGCCCGGTATCCGGCCGCGTCCCGCGCTCGGTGCCAGAACCTCGCTTCCAAT  
 CTCTGAGGCTGACTCCTGTCTCACCCGGTTCGAGTCCCTCACACATAACAATTACTCTGTCTCCTTGTG  
 GATCCTGCCTCCACACACTTTATGTTGGCGCCCGGGACACCATCTTCGTTTATCCCTGCCCTTCTCAG  
 GGGAGAGACCCCGCAGGATTGACTGGATGGTTCCTGAGGCTCACAGACAGAACTGTAGGAAGAAAGGCAA  
 GAAAGAGGGGGACCTCGGGGGCCGAAGACCCTCCAGCAGAGATGGACGACGTTTTTAAAGCTGACCTG  
 CTCTGTCCAGGGCTGAGCATGGCCGGCCTCCAGTGTCTGCAGGATGTTGCTGTGCTTCGACCTGAGC  
 TTGGGGCAGGGACTCCCATCTTTATGGCATCTTTTCTCCAGTGGGAGGGGGTACTATCTCTGCTGT  
 CTGTGCCCTCCGACCACAAGACATTCGGACAGTGTGAATGGTCCCTTCAGAGAATAAACATGACTGC  
 AACAGAGGACTGCCTGTGCTGGACAATGATGTGCCCCAGCCAGACCTGGAGAGTGCATACCAACAACA  
 TGAAGCTCCGGCACTTTGGCTCATCTCTCCCTGCCTGACCGCGTACTCACCTTCATCCGGGACCACCC  
 ACTCATGGACAGGCCAGTGTTCAGCTGATGGCCACCCCTGCCTGGTCACTACAGATACAGCCTATCTC  
 AGAGTCGTGGCCACAGGGTACCCAGCCTCAGGGAAAGAGTATGATGTGCTCTACCTGGGGACAGAGG  
 ATGGACACCTCCACCGAGCAGTGGGATCGGAGCTCAGCTCAGCGTTCCTGAAGATCTGGCCTATTCCC  
 AGAGCCACAGCCAGTTGAGAACAATAAATTGTACCACAGCTGGCTCCTGGTTGGCTCCCGTACTGAGGTG  
 ACACAAGTGAATAACAACAACCTGTGGCCGTCCAGAGCTGCTCAGAGTGCATCTGGCCAGGACCCGAG  
 TCTGTCCCTGGAGCTCCGGCTGGATGAGTGTGTGGCCATGCCGGGGAGCACCGAGGGTGGTCCAAGA  
 CATAGAGTCAGCAGATGTCTCCTTTGTGTCTAAAGAGCCTGGAGAAGTCCAGTAGTGTTTGAAGTT  
 CCCGTGGCTACAGCTGCGCATGTGGTCTTGCCATGTTCTCCAAGCTCAGCATGGGCATCCTGTGTGGC  
 ACCAGCCAGTGGAGTACTGCACTCACCCCGCGGGATGGACTGGAGGTGGTGGTACCCAGGGGC  
 CATGGGCGCTTATGCCTGTGAATGTGAGGAGGTGGGGCAGCCATGTGGTAGCAGCTTACAGCTTGGTA  
 TGGGGCAGCCAGCAGATGCTCCGAGCCGGGCCACACAGTGGGGCGGGACTGGCTGGCTTCTTCTTGG  
 GGATTCTCGCAGCATCCCTGACTCTCATTCTGATTGGTCGGCGTCAGCAGCGACGCGACAGAGGGA  
 TCTGGCTAGAGACAAGTGGCCTGGACCTGGGGCTCCACCTTCTGGGACCACAAGCTACAGCCAAGAC  
 CCTCCCTCCCTCTCCTGAAGATGAGCGGTTGCCGCTGGCCCTGGCCAAGAGGGGCAGTGGCTTTGGT  
 GATTCTACCACCTTCTGCTTATCCTTGCCAAGCCAGCCACATTCGGCTAACTGGGCTCCTCT  
 AGCCACATGTGATGAAACATCCATC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG233014 representing NM\_001271661  
 Red=Cloning site Green=Tags(s)

MPASAARPRPGQPTASPFPLLLLAVLSGPVSGRVPRSVPRTSLPISEADSCLTRFAVPHTYNYSVLLV  
 DPASHTLYVGARDTIFALSPLPFSGERPRRIDWMVPEAHRQNCRKKGKKEGDLGGRKTLQQRWTFLLKADL  
 LCPGPEHGRASSVLQDVAVLRPELGAGTPIFYGIFSSQWEGATISAVCAFRPQDIRTVLNGPFRELKHDC  
 NRGLPVVDNDVPQPRPGECITNNMKLRHFGSSLSLPDRVLTFRIDHPLMDRPVFPADGHPLLVTDDTAYL  
 RVVAHRVTSLSGKEYDVLVLTGTDGHLHRAVRIGAQLSVLEDLALFPEPQPVENMKLYHSWLLVGSRTVEV  
 TQVNTTNCGRLLQSCSEILAQDPVCAWSFRLDECVAHAGEHRGLVQDIESADVSSLCPKEPGERPVVFEV  
 PVATAAHVVLPCSPSSAWASCVWHQPSGVTALTPRRDGLVTVVTPGAMGAYACEQEGGAHVVAAYSLV  
 WGSQRDAPSRAHTVGAGLAGFFLGILAAASLTILIGRRQRRRQRELLARDKVGLDLGAPPSGTTSYSQD  
 PPSPEPDERLPLALAKRSGFGGFSPPFLLDPCPSPAHIRLTGAPLATCDETSI

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

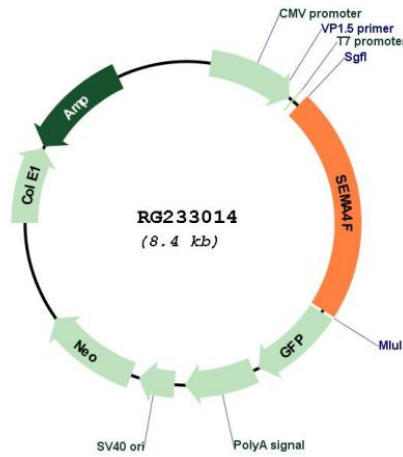
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_001271661  
 ORF Size: 1845 bp

<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<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_001271661.2</a>
<b>RefSeq Size:</b>	5657 bp
<b>RefSeq ORF:</b>	1848 bp
<b>Locus ID:</b>	10505
<b>UniProt ID:</b>	<a href="#">O95754</a>
<b>Cytogenetics:</b>	2p13.1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Axon guidance
<b>Gene Summary:</b>	This gene encodes a transmembrane class IV semaphorin family protein, which plays a role in neural development. This gene may be involved in neurogenesis in prostate cancer, the development of neurofibromas, and breast cancer tumorigenesis. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2012]