

## Product datasheet for **MG211486**

### Sema6a (NM\_018744) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Sema6a (NM\_018744) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Sema6a  
**Synonyms:** A730020P05Rik; AI851735; Sema6A-1; Semaq; Vla  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG211486 representing NM\_018744  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGGCCAGCAGCCTTACTGCTGTGTCTCACACTGCTACACTGCGCTGGGGCTGGTTTCCAGAAGATT  
CCGAGCCAATCAGTATTTTCGCATGGCAACTATACAAAACAGTATCCGGTGTGGGGCCACAAGCCAGG  
ACGGAACACCACGCAGAGGCACAGGCTGGACATCCAGATGATCATGATCATGAACAGAACCCTCTACGTT  
GCTGCTCGAGACCATATTTATACTGTTGATATAGACACATCCCACACAGAAGAAATTTACTGTAGCAAAA  
AACTGACATGAAATCTAGACAGGCTGACGTAGACACATGCAGGATGAAGGGGAAACATAAGGATGAATG  
TCACAACTTCATTAAAGTTCTTCTCAAGAAGAATGATGATACGCTGTTTGTCTGTGGAACCAATGCCTTC  
AACCTTCTCTGCAGAAACTACAGGGTCGATACCTTGAAAACCTTTTGGGGATGAATTTAGCGGAATGGCCA  
GATGCCCTTATGATGCCAAACATGCCAATCGCTCTGTTTGCAGATGGAAAACCTACTCGGCTACAGT  
GACTGACTTTCTGGCCATTGATGCAGTCATTTACAGGAGCCTCGGAGACAGCCCTACCCTCAGGACTGTC  
AAGCATGATTCAAAGTGGTTGAAAGAGCCGTAATTTGTCCAAGCCGTGGATTATGGGGACTATATCTACT  
TCTTCTCAGAGAAATTCAGTAGAATACAACACTATGGGAAGGTTGTTTTCCCTAGGGTGGCTCAGGT  
CTGTAAGAATGACATGGGAGGCTCAGAGAGTCTGGAGAAGCAGTGGACATCTTCTGAAGGCTCGC  
CTGAACCTGCTCGGTGCCGAGACTCTCATTTTTATTTCATATACTCCAGGCAGTTACAGATGTGATTC  
GCATTAATGGCCGTGATGTTGTCTTGGCAACCTTTCCACACCTTATAACAGCATCCAGGTTCTGCAGT  
CTGTGCCATGACATGCTTGACATTGCTAATGTTTTCACTGGGAGGTTCAAGGAACAGAAATCACCTGAC  
TCTACCTGGACACCCGTTCCAGACGAACGAGTCCCTAAGCCAGGCCAGGCTGTTGTGCTGGATCATCCT  
CTTTAGAAAAATATGCAACCTCCAATGAGTTTCCCGATGATACCTGAACCTCATTAAAGACGCATCCACT  
CATGGACGAGGCAGTGCCTTCCATCATCAACAGACCTTGGTTCTGAGAACAATGGTCAGATACCGCCTG  
ACCAAAATTCAGTAGACAACGCTGCCGGCCATATCAGAATCACACTGTGGTTTTCTGGGATCAGAAA  
AGGGAATCATCCTGAAGTCTTGGCCAGGATAGGAAGCAGTGGTTTCTAAATGGCAGCCTTTCTGGA  
GGAGATGAATGTTTACAACCCAGAAAAGTGCAGCTATGATGGTGTAGAAGACAAAAGGATCATGGGCATG



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CAGCTCGACAGAGCGAGTGGCTCACTCTATGTTGCATTCTCTACTTGTGTGATCAAGGTGCCTCTTGCC  
 GCTGTGAGCGACATGGGAAGTGTAAAAAACCTGCATCGCCTCCAGAGACCCGATTGTGGGTGGGTAAG  
 GGAAAGTGGTTCTGTGCCATCTGTCAACCCTTAGCAGACTGACATTTGAGCAGGACATTGAGCGTGGC  
 AATACGGACGGCTAGGAGACTGTCACAATTCCTCGTGGCACTGAATGGGCACGCCAGTTCCCTCTATC  
 CCAGCACCACACTACGTGAGATTCCGCATCCCGAGACGGGTATGAGTCTAGGGGAGGCATGCTGGACTGAA  
 CGACCTGCTCGAGGCACCTGGCAGCACAGACCCCTTGGGGCAGTGTCTCTATAACCACCAGGACAAG  
 AAGGGAGTGATTCCGGAAAGTTACCTCAAAGCAACGACCAGCTTGTTCCTGTCAACCCTCTGGCCATTG  
 CAGTCATTCTGGCTTTTGTGATGGGGCCGTCTTCTCGGGCATCATCGTGTATTGTGTGTGCGATACCG  
 GCGCAAAGACGTGGCAGTAGTGCAGCGCAAGGAGAAAGAGCTCACTCACTCGCGTCGGGGATCTATGAGC  
 AGTGTACCAAGCTCAGTGGCCTCTTGGGGACACCCAGTCCAAGGACCCAAAGCCTGAGGCCATCTCA  
 CACCCTCATGCACAACGGCAAGCTGGCCACGCCAGCAACACCCGCAAGATGCTCATCAAGGCTGACCA  
 GCATCACCTAGACCTCACCGCCCTGCCACCCAGAGTCCACCCGCACTGCAGCAGAAACGGAAACCC  
 AACCGCGCAGTCGCGAGTGGGAGGAACCAGAACATCATCAATGCCTGCACCAAGGACATGCCTCCCA  
 TGGTTCCCTGTGATCCACGGACCTGCCCTCCGGGCTCCCAAGCCACATCCCAGCGTGGTGGT  
 CCTGCCATCACGCAGCAGGGCTACCAGCAGAGTACGTAGATCAGCCAAAATGAGCGAGTGGTGGCT  
 CAGATGGCACTGGAGACCAGGCTGCCACCTGGAGTATAAGACCATCAAAGAGCACCTGAGTAGCAAGA  
 GTCCCAACCATGGGGTGAACTTGTGGAGAACCCTGGACAGCCTGCCCCCTAAAGTTCCACAGCGCAGGC  
 CTCCCTAGGTCCCCGGGAACCTCACTGTACAGACCGCCTGAGCAAGAGGCTGGAGATGCAACACTCC  
 TCCTCCTATGGGCTCGAATAAAGAGGAGCTACCCACGAACTCGCTCACAAGAAGCCACAGACCACCA  
 CTCTCAAAGAACAATACTAATCCTCCAATTCCTCCACCTCTCCAGGAACCAGAGCTTTGGCCGGGG  
 AGACAACCCACCCCGCCCGCAGCGGGTGGACTCTATCCAGGTGCACAGCTCCAGCCCTCTGGCCAG  
 GCCGTGACTGTTTCGAGGCAGCCAGCCTCAATGCCTACAACCTACTGACGAGGTGGGGCTGAAGCGCA  
 CCCCTCGCTAAAGCCAGATGTACCCCAACCTTCTTTGCTCCCTTCCACATCCATGAAGCCCAA  
 TGATGCATGTACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG211486 representing NM\_018744  
 Red=Cloning site Green=Tags(s)

MRPAALLLCLLLHCAGAGFPEDSEPISSHNYTKQYPVFGHKPGRNTTQRHRLDIQMIMIMNRTLIV  
 AARDHIYTVDDTSHTEIYCSKLTWKSQADVDTCRMKGKHKDECHNFIVLLKKNDDTLFVCGTNAF  
 NPSCRNYRVDLTLETGDEFSGMARCPYDAKHANIALFADGKLYSATVDFLAIDAVIYRSLGDSPTLRV  
 KHDSKWLKEPYFVQAVDYGDIYFFREIAVEYNTMGKVVPRVAQVCKNDMGGSQRVLEKQWTSFLKAR  
 LNCVPGDSHFYFNILQAVTDVIRINGRDVVLATFSTPYNSIPGSAVCAYDMLDIANVFTGRFKEQKSPD  
 STWTPVDERVPKPRPGCCAGSSSLEKYATSNEFPDDLNFIKTHPLMDEAVPSIINRPWFLRTMVRYL  
 TKIAVDNAAGPYQNHTVVFLGSEKGIILKFLARIGSSGFLNGSLFLEEMVYNPEKCSYDGVEDKRIMGM  
 QLDRASGLYVAFSTCVIKVPLGRCERHGKCKKTCIASRDPYCGWVRESGSCAHLSPLSRLTFEQDIERG  
 NTDGLGDCHNSFVALNGHASSLYPSTTTSDSASRDGYESRGMMLDWNLLLEAPGSTDPLGAVSSHNDK  
 KGVIRESYLKSNDQLVPVTLIAIVILAFVMGAVFSGIIVYCVCDHRRKDVAVVQRKEKELTHSRRGMS  
 SVTKLSGLFGDTQSKDPKPEAILTPLMHNGKLATPSNTAKMLIKADQHHLDTALPTPESTPLQQRKP  
 NRGSRWERNQNIINACTKDMPPMGSPVPTDLPLRASPSHIPVSVVLPITQQGYQHEYVDQPKMSEVVA  
 QMALEDQAATLEYKTIKEHLSSKSPNHGVLVENLDSLPPKVPQREASLGPPGTSLSQTGLSKRLEMQHS  
 SSYGLEIKRSYPTNSLTRSHQTTTLKRNTNSSNSHLSRNQSFGRGDNPPAPQVRVDSIQVHSSQPSGQ  
 AVTVSRQPSLNAYNLSLRSGLKRTPSLKPDPVPPKPSFAPLSTSMKPNDACT

TRTRPLE – GFP Tag – V

**Restriction Sites:**

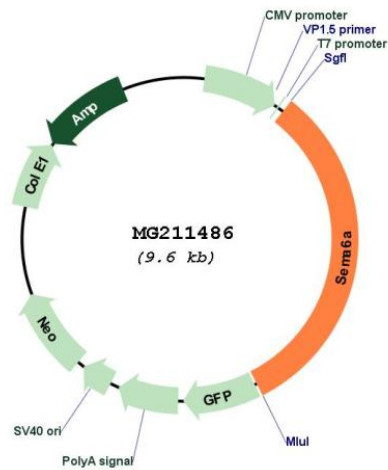
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_018744  
 ORF Size: 3093 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>	<p><a href="#">NM_018744.2</a>, <a href="#">NP_061214.2</a></p>
<b>RefSeq Size:</b>	<p>6901 bp</p>
<b>RefSeq ORF:</b>	<p>3096 bp</p>
<b>Locus ID:</b>	<p>20358</p>
<b>UniProt ID:</b>	<p><a href="#">O35464</a></p>
<b>Cytogenetics:</b>	<p>18 C</p>
<b>Gene Summary:</b>	<p>Cell surface receptor for PLXNA2 that plays an important role in cell-cell signaling. Required for normal granule cell migration in the developing cerebellum. Promotes reorganization of the actin cytoskeleton and plays an important role in axon guidance in the developing central nervous system. Can act as repulsive axon guidance cue. Has repulsive action towards migrating granular neurons. May play a role in channeling sympathetic axons into the sympathetic chains and controlling the temporal sequence of sympathetic target innervation. [UniProtKB/Swiss-Prot Function]</p>