

## Product datasheet for **MR211660**

### Sema5b (BC052397) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Sema5b (BC052397) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Sema5b  
**Synonyms:** SemG, mKIAA1445  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR211660 representing BC052397  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGTAGTCCCAGGACCCTGGCTCTCTCGCTGTTGCTGTCCAGCCTCACCTGCTGGTGTCCCACCTCT  
CCAGCTCCAGGACATTGCCAGTGAGTCCAGCAGTGAGCAACAGATGTGCACGCGGAGGGAGCACCCCAT  
CGTGGCCTTTGAAGATCTGAAGCCGTGGGTCTTAACTTACCTACCCTGGAGTCCGGGATTTCTCCAG  
CTTGCTCTTGATCCCTCGAGGAATCAGCTCATCGTGGGAGCCAGGAACTACCTCTTCAGACTCAGCCTCG  
CCAATGTCTCCCTCCTTACGGCTACAGAGTGGGCTCCAGTGAGGACACGCGCCGCTCCTGCCAGAGCAA  
AGGGAAAACGGAGGAGGAGTGTGAGAACTATGTACGAGTCTGATTGTTCCGGCCGGAAGGTGTTTCATG  
TGCGGTACCAATGCCTTTTCCCCAGTGTGCTCCAGCAGACAGGTAGGGAACCTCAGCCGGACTATTGAGA  
AGATCAACGGTGTGGCCCGGTGCCCTATGACCCACGCCACAACCTACAGCCGTCATCTCCTCTCAGGG  
GGAGCTCTATGCAGCCACAGTCAATTGACTTCTCCGGTCCGGACCCAGCCATCTACCGCAGCCTGGGCAGT  
GGGCCACCGCTTCGCACTGCCAGTAACTCCAAATGGCTCAATGAGCCAAATTTGTGGCAGCCTTTG  
ACATCGGGCTGTTTGCATTTTCTTCCCTCGGGAGAATGCCGTGGAGCATGATTGTGGGCGCACTGTGTA  
CTCTCGGGTGGCCGGGTGCAAGAATGATGTAGGTGGCCGTTTCTGCTGGAGGACAGTGGACCACA  
TTCATGAAGGCCCGCTCAACTGCTCCCGCCGGGAGAGGTCCCTTCTACTATAATGAGCTGCAGAGTG  
CCTTCCATCTGCCGAGCAGGACCTCATCTATGGCGTCTTACCACCTAACGTAACAGCATTGCGGCTTC  
TGCTGTCTGCGCTTCAACCTCAGTGCCATCTCCAAGGCTTCAATGGCCATTTTCGTTACCAGGAAAAC  
CCCAGGGTGCCTGGCTCCCAATCGCAATCCCATCCCAATTTCCAGTGTGGCACTCTGCCGAGACTG  
GCCCAACGAGAACCTCACGGAGCGCAGCCTGCAGGACGCACAGCGGCTTCTCTGATGAGCGAAGCTGT  
GCAGCCAGTGACACCAGAGCCCTGTGTACCCAGGACAGCGTCCGCTTCTCACATCTCGTGGTAGACCTT  
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TGAACCTCTGCGGAGCCTGCGCATCCTGCACAGCGCGCTGCGCTCTTCTGTTGGGATTGAGCGACAGGGT  
CTGCGGGTCCCACTGGAGAGGTGTTTCGGCTATCATAGCCAGGGGCGATGCCTGGGAGCACGGGACCCAT



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ACTGCGGCTGGGATGGGAAGCGGCAACTTTGCAGCACGCTTGAAGACAGTTCCAACATGAGCCTGTGGAT  
 CCAGAACATCACAACTGTCTGTACGAAATGTGACACGGGATGGGGGCTTCGGCCCATGGTCACCATGG  
 AAACCGTGTGAGCACTTAGATGGAGACAACTCGGGTCTTGCCTGTGCCGGGCCAGATCTGTGACTCCC  
 CAAGGCCCTCGCTGTGGGGGCTCGAGTGCCTGGGGCCATCCATCCATATTGCCAATTGCTCCAGGAATGG  
 GGCGTGGACCGCATGGTTCATCGTGGGCTCAGTGCAGCAGTCTGTGGGATCGGCTTCCAGGTCGGTCAG  
 CGAAGTTGCAGCAACCCGGCGCCCGCCATGGGGGCCATTGCGTGGGCAAGAGCCGGGAGAGCGGT  
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 TGGGAGACGCTGCGGAGTACCAAGACTGCAACCCACAGGCTTGCCAGTGCGGGGTGGTTCCTGCTG  
 GACCGCATGGTCCCAGTCTCAGCATCTGCGGTGGTGGCCACTATCAACGCACCCGTTCTGCACCAGC  
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 AACAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR211660 representing BC052397  
 Red=Cloning site Green=Tags(s)

MVVPGLALSLLLSSLTLLVSHLSSSQDIASESSSEQMCTREHPIVAFEDLKPWFNFYTPGVRDFSQ  
 LALDPSRNQLIVGARNYLFRLSLANVLLQATEWASSEDTRRSCQSKGKTEEEQCQNYVRLIVSGRKVM  
 CGTNAFSPVCSRRQVGNLSRTIEKINGVARCPYDPRHNSTAVISSQELYAATVIDFSGRDPAIYRSLGS  
 GPPLRTAQYNSKWLNEPNFVAADFIDGLFAYFFLRENAVEHDCGRVYSRVARVCKNDVGGRFLEDTWTT  
 FMKARLNCSRPGVFPFYNELQSAFHLPEQDLIYGVTFTNVNSIAASAVCAFNLSAISKAFNGPFRYQEN  
 PRAAWLPANPINFQCGLPETGPNENLTERSLQDAQRLFLMSEAVQPVTPEPCVTDQSVRFSHLVVDL  
 VQAKDTLYHVLVIGTESGTLKALSTASRSLRGCYLEELHVLPPGRLEPLRSLRILHSARALFVGLSDRV  
 LRVPLERCSAYHSQGAQLGARDPYCGWDGKRQLCSTLEDSSNMSLWIQNIITCPVRNVTRDGGFGPWSW  
 KPCEHLGDNSGSLCRARSCDSPRRCGLECLGPSIHIANCSRNGAWTAWSSWAQCSTSCGIGFQVRQ  
 RSCSNPAPRHGGRICVKGKREERFCNENTPCVPVIFWASWGSWSKSNCCGGVQSRRRSCENGNSCPGC  
 GVVRSRGWAGSGETYSPGGVGGSEATLTPKEFKTCNPEACEVRRNTPWTPWLPVNVTTQGGARQEQRFR  
 FTCRAPLPDPHGLQFGKRRTETRTCPADGTGACDLDALVEDLLRSGTSPHTLNGGWATWGPWSSCSRDC  
 ELGFRVRKRTCTNPEPRNGGLPCVGDAAEYQDCNPQACPVRGAWSCWTAWSSQCSASCSSGGHYQRTRSCS  
 PAPSPGEDICLGLHTEALCSTQACPEGWSLWSEWGVCTEDGAQSRSRSCCELLPGPGACVGNSSQSRPC  
 PYSEIPVILPASSVEETTSCGGFNLHILIVTGVSCFLVSGLLTLAVYLSQHCQRQSQESTLVHPATPNH  
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 NS

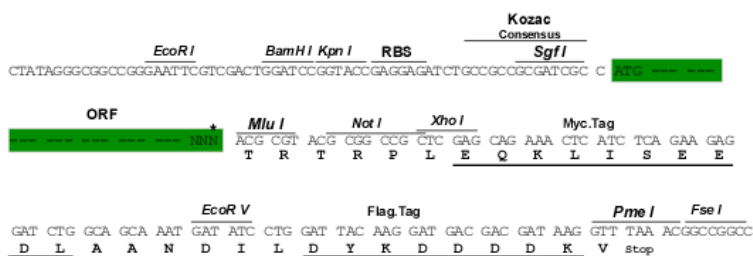
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

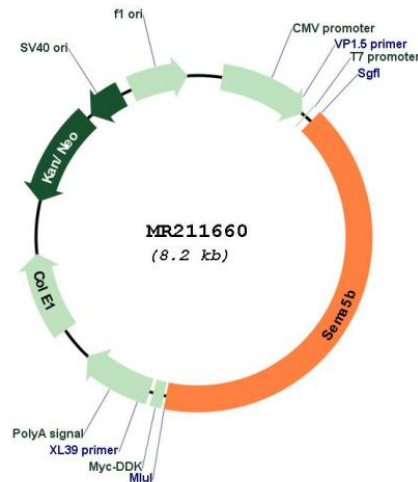
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** BC052397

**ORF Size:** 3366 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:** [BC052397.1](#)

**RefSeq Size:** 4658 bp

**RefSeq ORF:** 3368 bp

**Locus ID:** 20357

**Cytogenetics:** 16 B3

**MW:** 170.7 kDa

**Gene Summary:** May act as positive axonal guidance cues.[UniProtKB/Swiss-Prot Function]