

Product datasheet for **MC221293**

Sema3b (NM_009153) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sema3b (NM_009153) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sema3b
Synonyms:	LUCA; Se; sem; SemA; sema5; Sema; semaV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221293 representing NM_009153
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCGGGCTGAGGCCGCCCATGATCCCAGGCCCTGCCCCTCTCTGGGTAGCAGGGCTAGGGGATA
 CTGCCCTAACCTTCCCCGCTTCGGCTCTCCTTTCAAGAATTACAGGCCGGCATGGTGTCCGAACCTT
 CAGGCTGGAGCGGACCTGCTGTTATGAAGCCTTGTGGTGGATGAGGAGCGTGGACGCCTGTTTGTGGGT
 GCTGAGAACCACGTGGCTTCCCTCAGCCTGGACAACATCAGCAAGCGAGCCAAGAAGCTGGCCTGGCCCG
 CCCCCGTGGAATGGCGTGAAGAAATGCAACTGGGCAGGGAAGGACATTGGTACCGAGTGCATGAACCTCGT
 GAAGCTGCTGCACACCTACAACCACACCCACTTGTGGCCTGTGGCACAGGGGCTTTCCACCCAACCTGT
 GCCTTTGTGGAGTGGGCCACCGCTGGAGGAACCCATGCTTCAACTGGACCGGAGGAACTTGAGGACG
 GCAAGGGGAAGACTCCTTATGACCCAAGGCATCGGGCTGCCTCGGTGCTGGTGGGGGAAGAAGTGTATTC
 TGGGGTGACAGCAGACCTTATGGGCCGGGACTTTACCATCTTTGAAGCCTTGGTCAAGATCCGAGTCTC
 CGAACAGAGCCCCATGATTCGCGCTGGCTCAATGAACCCAAGTTGTCAAGGTCTTTGGATCCCAGAGA
 GTGAGAACCCTGATGACGATAAAATCTATTTCTTCCGCGAGTCCGCTGTGGAAGCAGCACCAGCAAT
 GGGGCGCATGTCTGTGTCTCGTGTGGCCAGATCTGCAGGAATGACCTGGGTGGCCAGCGGAGCTTGGTC
 AACAAATGGACCACATTTCTGAAGGCGCGGCTTGTGTGCTCAGTACCTGGAGTTGAGGGTACACCCACT
 TTGACCAACTTCAGGATGTTTTCTTCTGTCTCCCGAGACCGCCAGACACCTTCTCTATGCTGTCTT
 CTCCACCTCCAGTGGTGTCTTCCAGGGCTCTGCTGTGTGCGTGTACAGCATGAACGATGTGCGCCGAGCC
 TTCTTGGGACCTTTTGTCAAAAGAGGGGCTACACACCAGTGGGTGTCTACCAGGGTGTGTCCCT
 ACCAAGACCTGGCATGTGCCCCAGCAAGACCTTGGCACCTTCAGCTCCACCAAGGACTTCCAGATGA
 CGTTATCCAGTTTGTCTCGGAACCACCTCTCATGTACAACCCAGTCTGCCCATGGGGGGGCGCCCTCTC
 TTCTTACAAGTGGGAGCTGGGTACACCTTACCCTAAATCGCCGAGACCGAGTAGCAGCTGCCGATGGAC
 ACTACGATGTTCTCTTATTGGTACAGATGTGGGCACAGTGTGAAAGTATCTCAGTCCCCAAAGGCAG
 CCGACCTAATTCTGAAGGACTTCTCCTGGAAGAGCTGCAGGTGTTGAGGACTCTGCCGCTATCACCAGC
 ATGCAAATCTCCTCTAAAAGGCAACAACCTACATAGCATCGCGCAGCGCAGTGGCCAGATTGCTTTGC
 ATCGTGCCTGCCCTAGGCCGCGCTGCGCAGAATGCTGCTTGGCCCGTATCCTTACTGCGCCTGGGA
 TGGATCAGCTTGCACACGCTTCCAGCCTACGGCCAAGAGACGGTTCGGGAGGCAAGACATAAGGAATGGC
 GACCCAGCACCTATGCTCTGGAGACTTCTACTCTGTGCTGCTGGAGAAGAAGGTGTTGGGTGTGG
 AGAGCGGAGCGGTTTCTGGAGTGTGAGCCCCGCTCGCTCCAGGCGCATGTGCAGTGGACCTTCCAAGG
 TGACGGGGAGGAGCTCACACCCAGGTGCTGGCTGAGGAGAGAGTAGAGCGCACTGCGCGGGGGTGTCTG
 TTGCGGGGGTGCGGCGCAGGACTCTGGCGTGTATCTTTGCGTGCAGGTTGAACAAGGCTTTTCAAC
 CACTGCGTGCCTGGTGTGCATGTGTTGAGTGCGGCGCAGGCTGAACGACTGGCACGGGAGAGGAAGC
 AGCCGCTCCTGCACCTCTGGCCCTAAACTCTGGTACCGGGACTTCTGCAGTTGGTGGAGCCAGGCGGT
 GGCGGAGGTGCAAACCTCCCTGCGAATGTGCCCGCCGAGCCGGGACCACTCTGTGGCAGCAGATTAC
 GTCGTAAGGGTCGCAACAGACGGATGCATGTCTGAGCTCCGTGCTGAGCGTGGACCACGTAGTGCAGC
 TCACTGGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_009153
Insert Size: 2250 bp

OTI Disclaimer: 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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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: [NM_009153.3](#), [NP_033179.2](#)

RefSeq Size: 3556 bp

RefSeq ORF: 2250 bp

Locus ID: 20347

Cytogenetics: 9 58.31 cM

Gene Summary: This gene encodes a secreted protein that belongs to the class 3 semaphorin/collapsin family. Members of this family play a role in growth cone guidance during neurogenesis. The encoded protein inhibits axonal extension. This protein is thought to be an osteoblast protein that regulates bone mass and affects skeletal homeostasis. A similar gene in humans functions as a tumor suppressor gene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2014]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 3. Variants 1 through 5 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.