

Product datasheet for **MR231057**

Sema3b (NM_001291539) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sema3b (NM_001291539) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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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ORF Nucleotide Sequence:

>MR231057 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGCGGGCTGAGGCCGCCCATGATCCCAGGCCTGGCCCTTCTCTGGGTAGCAGGGCTAGGGGATA
 CTGCCCTAACCTTCCCGCCTTCGGCTCTCCTTTCAAGAATTACAGGCCGGCATGGTGTCCGAACCTT
 CAGGCTGGAGCGGACCTGCTGTTATGAAGCCTTGTGGTGGATGAGGAGCGTGGACGCCTGTTTGTGGGT
 GCTGAGAACCACGTGGCTTCCCTCAGCCTGGACAACATCAGCAAGCGAGCCAAGAAGCTGGCCTGGCCCG
 CCCCCGTGGAATGGCGTGAAGAAATGCAACTGGGCAGGGAAGGACATTGGTACCGAGTGCATGAACTTCGT
 GAAGCTGCTGCACACCTACAACCACACCCACTTGTGGCCTGTGGCACAGGGGCTTTCCACCCAACCTGT
 GCCTTTGTGGAGTGGGCCACCGCTGGAGGAACCCATGCTTCACTGGACCGGAGGAACTTGAGGACG
 GCAAGGGGAAGACTCCTTATGACCCAAGGCATCGGGCTGCCTCGGTGCTGGTGGGGGAAGAACTGTATTC
 TGGGGTGACAGCAGACCTTATGGGCCGGGACTTTACCATCTTTGAAGCCTTGGTCAAGATCCGAGTCTC
 CGAACAGAGCCCCATGATTCGGCTGGCTCAATGAACCCAAGTTTGTCAAGGTCTTTTGGATCCCAGAGA
 GTGAGAACCCTGATGACGATAAAATCTATTTCTTCCGCGAGTCCGCTGTGGAAGCAGCACCAGCAAT
 GGGGCGCATGTCTGTGTCTCGTGTGGCCAGATCTGCAGGAATGACCTGGGTGGCCAGCGGAGCTTGGTC
 AACAAATGGACCACATTTCTGAAGGCGCGGCTTGTGTGCTCAGTACCTGGAGTTGAGGGTGACACCCACT
 TTGACCAACTTCAGGATGTTTTCTTCTGTCTCCCGAGACCGCCAGACACCTTCTCTATGCTGTCTT
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 TTCTTGGGACCTTTTGTCAAAAGAGGGGCTACACACCAGTGGGTGTCTACCAGGGTGTGTCCCT
 ACCCAAGACTGGCATGTGCCCCAGCAAGACTTTGGCACCTTCAGCTCCACCAAGGACTTCCAGATGA
 CGTTATCCAGTTTGTCTCGGAACCACCTCTCATGTACAACCCAGTCTGCCCATGGGGGGGCGCCCTCTC
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 ACTACGATGTTCTCTTATTGGTACAGATGTGGGCACAGTGTGAAAGTATCTCAGTCCCCAAAGGCAG
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 ATGCAAATCTCCTCTAAAAGGCAACAACCTACATAGCATCGCGCAGCGCAGTGGCCAGATTGCTTTGC
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 TGGATCAGCTTGCACACGCTTCCAGCCTACGGCCAAGAGACGGTCCGGAGGCAAGACATAAGGAATGGC
 GACCCAGCACCTATGCTCTGGAGACTTCTCACTCTGTGCTGCTGGAGAAGAAGGTGTTGGGTGTGG
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 TGACGGGGAGGCAGCTCACACCCAGGTGCTGGCTGAGGAGAGAGTAGAGCGCACTGCGCGGGGGCTGCTG
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 CACTGCGTGCCTGGTGTGCATGTGTTGAGTGCAGGCGCAGGCTGAACGACTGGCACGGGAGAGGAAGC
 AGCCGCTCCTGCACCTCTGGCCCTAAACTCTGGTACCGGACTTTCTGCAGTTGGTGGAGCCAGGCGGT
 GGCGGAGGTGCAAACTCCCTGCGAATGTGCCCGCCGAGCCGGGACCACCTCTGTGGCAGCAGATTAC
 GTCGTAAGGGTCGCAACAGACGGATGCATGTCTGAGCTCCGTGCTGAGCGTGGACCACGTAGTGCAGC
 TCACTGG

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231057 protein sequence
 Red=Cloning site Green=Tags(s)

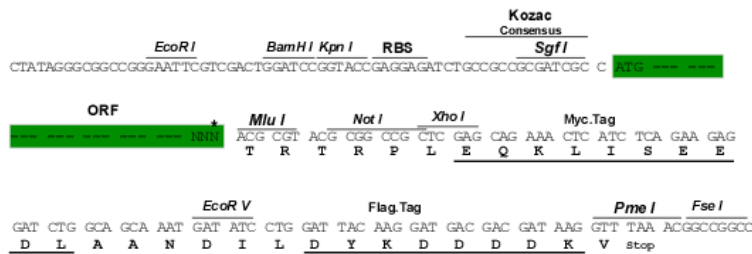
MGRAEAAAMIPGLALLWVAGLGDTAPNLPRLRFSQELQARHGVRTFRLERTCCYEALLVDEERGRLFVG
 AENHVASLSLDNISKRKKLAWPAPVEWREECNWAGKDIGTECMNFVKLLHTYNHTHLLACGTGAFHPTC
 AFVEVGHRLLEPMLQLDRRKLEDGKGTPTYDPRHRAASVLVGEELYSQVADLMGRDFTIFRSLGQNP
 RTEPHDSRWLNPEKFKVFWIPESENPDDDKIYFFRESAVEAAPAMGRMSVSRVQICRNDLGGQRSLV
 NKWTTFLKARLVCSVPGVEGDTHFDQLQDVFLSSSRDRQTPLL YAVFSTSSGVFQGSAVCVSMNDV
 RRAFLGPF AHKEGPTHQWVS YQGRVPYPRPGMCP SKTFGTFSSTKDFPDDVIQFARNHPLMYNPVLP
 MGGRPLFLQV GAGYFTTQIAADRVAADGHYDVLFIGTDVGTVLKVISV PKGSRPNSEGLLLEELQV
 FEDSAAITSMQISSKRQQLYIASRSVAQIALHRCTALGRACAECLARDPYCAWDGSACTRFQPTAK
 RFRQDIRNGDPSTLCSGSSHSVLLEKKVLGVESGSAFL ECEPRSLQAHVQWTFQGAGEAAHTQV
 LAEERVERTARGLLRGLRRQDSGVYLCVAVEQGF SQPLRRLVLHVL SAAQAERLARAEAAAPAPP
 GPKLWYRDFLQLVEPGGGGANSRLMCRPQPGHHSVAADSRRKGRNRRMHVSELRAERGPRSAAHW

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001291539

ORF Size: 2247 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: [NM_001291539.1](#), [NP_001278468.1](#)

RefSeq Size: 3687 bp

RefSeq ORF: 2250 bp

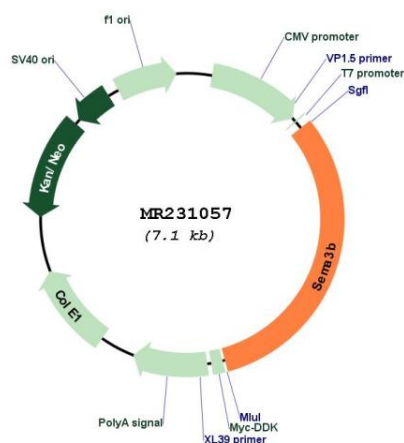
Locus ID: 20347

Cytogenetics: 9 58.31 cM

MW: 83.1 kDa

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]

Product images:



Circular map for MR231057