

Product datasheet for **MR231054**

Sema3b (NM_001042779) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sema3b (NM_001042779) 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:

>MR231054 representing NM_001042779
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGGCGGGCTGAGGCCGCCCATGATCCCAGGCCCTGGCCCTTCTCTGGGTAGCAGGGCTAGGGGATA
CTGCCCTAACCTTCCCGCCTTCGGCTCTCCTTTCAAGAATTACAGGCCGGCATGGTGTCCGAACCTT
CAGGCTGGAGCGGACCTGCTGTTATGAAGCCTTGTGGTGGATGAGGAGCGTGGACGCCTGTTTGTGGGT
GCTGAGAACCACGTGGCTTCCCTCAGCCTGGACAACATCAGCAAGCGAGCCAAGAAGCTGGCCTGGCCCG
CCCCGTGGAATGGCGTGAAGAAATGCAACTGGGCAGGGAAGGACATTGGTACCGAGTGCATGAACTTCGT
GAAGCTGCTGCACACCTACAACCACACCCACTTGTGGCCTGTGGCACAGGGGCTTTCCACCCAACCTGT
GCCTTTGTGGAGTGGGCCACCGCTGGAGGAACCCATGCTTCACTGGACCGGAGGAACTTGAGGACG
GCAAGGGGAAGACTCCTTATGACCCAAGGCATCGGGCTGCCTCGGTGCTGGTGGGGGAAGAAGTGTATTC
TGGGGTGACAGCAGACCTTATGGGCCGGGACTTTACCATCTTTGAAGCCTTGGTCAAGATCCGAGTCTC
CGAACAGAGCCCCATGATTCGGCTGGCTCAATGAACCCAAGTTGTCAAGGTCTTTGGATCCCAGAGA
GTGAGAACCCTGATGACGATAAAATCTATTTCTTCCGCGAGTCCGCTGTGGAAGCAGCACCAGCAAT
GGGGCGCATGTCTGTGTCTCGTGTGGCCAGATCTGCAGGAATGACCTGGGTGGCCAGCGGAGCTTGGTC
AACAAATGGACCACATTTCTGAAGGCGCGGCTTGTGTGCTCAGTACCTGGAGTTGAGGGTACACCCACT
TTGACCAACTTCAGGATGTTTTCTTCTGTCTCCCGAGACCGCCAGACACCTTCTCTATGCTGTCTT
CTCCACCTCCAGTGGTGTCTTCCAGGGCTCTGCTGTGTGCGTGTACAGCATGAACGATGTGCGCCGATCC
TTCTTGGGACCTTTTGTCAAAAGAGGGGCTACACACCAGTGGGTGTCTACCAGGGTGTGTCCCT
ACCAAGACCTGGCATGTGCCCCAGCAAGACTTTGGCACCTTCAGCTCCACCAAGGACTTCCAGATGA
CGTTATCCAGTTTGTCTCGGAACCACCTCTCATGTACAACCCAGTCTGCCCATGGGGGGCGCCCTCTC
TTCTTACAAGTGGGAGCTGGGTACACCTTACCACCAATCGCCGAGACCGAGTAGCAGCTGCCGATGGAC
ACTACGATGTTCTCTTATTGGTACAGATGTGGGCACAGTGTGAAAGTATCTCAGTCCCCAAAGGCAG
CCGACCTAATTCTGAAGGACTTCTCCTGGAAGAGCTGCAGGTGTTGAGGACTCTGCCGCTATCACCAGC
ATGCAAATCTCCTCTAAAAGGCAACAACCTACATAGCATCGCGCAGCGCAGTGGCCAGATTGCTTTGC
ATCGCTGCACTGCCCTAGGCCGCGCTGCGCAGAATGCTGCTTGGCCCGTATCCTTACTGCGCCTGGGA
TGGATCAGCTTGCACACGCTTCCAGCCTACGGCCAAGAGACGGTCCGGAGGCAAGACATAAGGAATGGC
GACCCAGCACCTATGCTCTGGAGACTTCTCACTCTGTGCTGCTGGAGAAGAAGGTGTTGGGTGTGG
AGAGCGGCAGCGGTTTCTGGAGTGTGAGCCCCGCTCGCTCCAGGCGCATGTGCAGTGGACCTTCCAAGG
TGACGGGGAGGCAGCTCACACCCAGGTGCTGGCTGAGGAGAGAGTAGAGCGCACTGCGCGGGGGCTGCTG
TTGCGGGGGCTGCGGCGCAGGACTCTGGCGTGTATCTTTGCGTGCAGGTTGAACAAGGCTTTTCAAC
CACTGCGTGCCTGGTGTGCATGTGTTGAGTGCAGGCGCAGGCTGAACGACTGGCACGGGAGAGGAAGC
AGCCGCTCCTGCACCTCTGGCCCTAAACTCTGGTACCGGACTTTCTGCAGTTGGTGGAGCCAGGCGGT
GGCGGAGGTGCAAACCTCCCTGCGAATGTGCCCGCCGAGCCGGGACCACTCTGTGGCAGCAGATTAC
GTCGTAAGGGTCGCAACAGACGGATGCATGTCTGAGCTCCGTGCTGAGCGTGGACCACGTAGTGCAGC
TCACTGG

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231054 representing NM_001042779
 Red=Cloning site Green=Tags(s)

MGRAEAAAMIPGLALLWVAGLGDTAPNLPRLRFSQELQARHGVRTFRLERTCCYEALLVDEERGLFVG
 AENHVASLSLDNISKRAKKLAWPAPVEWREECNWAGKDIGTECMNFVKLLHTYNHTHLLACGTGAFHPTC
 AFVEVGHRLLEPMLQLDRRKLEDGKGTPTYDPRHRAASVLVGEELYSQVADLMGRDFTIFRSLGQNP
 RTEPHDSRWLNPEKFKVFWIPESENPDDDKIYFFRESAVEAAPAMGRMSVSRVQICRNDLGGQRSLV
 NKWTTFLKARLVCSVPGVEGDTHFDQLQDVFLSSSRDRQTPLL YAVFSTSSGVFQGSAVCVSMNDVRRS
 FLGPF AHKEGPTHQWVS YQGRVPYPRPGMCP SKTFGTFSSTKDFPDDVIQFARNHPLMYNPVLP MGRPL
 FLQV GAGYFTTQIAADRVAADGHYDVLFIGTDVGTVLKVISV PKGSRPNSEGLLLEELQVFEDSAAITS
 MQISSKRQQLYIASRSVAQIALHRCTALGRACAECLARDPYCAWDGSACTRFQPTAKRRFRQDIRNG
 DPSTLCSGDSSHSVLLEKKVLGVESGSAFL ECEPRSLQAHVQWTFQGAGEAAHTQVLAEEVERTARGLL
 LRGLRRQDSGVYLCVAVEQGF SQPLRRLVLHVL SAAQAERLARAEAAAAPP GPKLWYRDFLQLVEPGG
 GGGANSLRMCRPQPGHHSVAADSRRKGRNRRMHVSELRAERGPRSAAHW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001042779

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_001042779.1](#), [NM_001042779.2](#), [NP_001036244.1](#)

RefSeq Size: 3746 bp

RefSeq ORF: 2250 bp

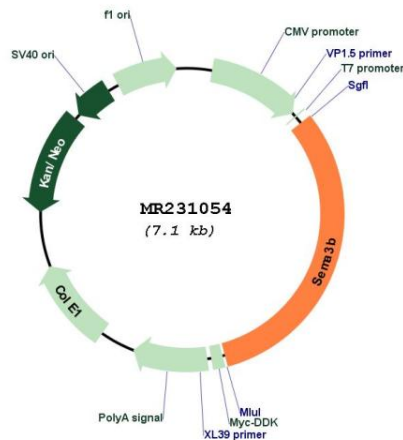
Locus ID: 20347

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 MR231054