

Product datasheet for **RC216548**

SEMA4B (NM_020210) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA4B (NM_020210) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SEMA4B
Synonyms:	SEMAG; SemC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC216548 representing NM_020210
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCGCACCGCGATGGGCCTGAGGAGCTGGCTCGCCGCCCATGGGGCGCGTCCGCCTCGGCCAC
 CGCTGCTGCTCCTGCTGCTGCTCCTGCTGCGAGCCGCGCCTCCGACCTGGGCGCTCAGCCCCG
 GATCAGCCTGCCTCTGGGCTCTGAAGAGCGGCCATTCTCAGATTGGAAGCTGAACACATCTCCAACAC
 ACAGCCCTTCTGCTGAGCAGGGATGGCAGGACCCTGTACGTGGGTGCTCGAGAGGCCCTCTTTGCACTCA
 GTAGCAACCTCAGCTTCTGCCAGGCGGGGAGTACCAGGAGCTGCTTTGGGGTGCAGACGAGAGAAGAA
 ACAGCAGTGCAGCTTCAAGGGCAAGGACCACAGCGGACTGTCAAACTACATCAAGATCCTCCTGCCG
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 GGCTGCAAGACCCAGCTTTTGTGGCCTCAGCCTACATTCTGAGAGCCTGGGCAGCTTGAAGGCGATGA
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 GAACTACAGAAGGCTTGCCTGTGTCTTCAATGAAGGATGTGCAGAGAGTCTTACGCGGCCTCT
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 CTCGCTACCAGCGGTGGCTGTACACCGCTCCCTGGCCTGCACCACACCTACGATGTCTCTTCTGGG
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 ATCTTCTCATCGGGACAGCCGTGCAGAATCTGCTCCTGGACACCCACAGGGGGTGTGTATGCGGCC
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 CGGGGTGGCAGACCAACAGATGAGGGTGGCAGTGTACCCGTATTATCAGCACATCGCGTGTGAGTGCA
 CCAGCTGGTGGCAAGGCCAGTGGGGTGCAGACAGGTCTACTGGAAGGAGTTCTGGTGTGTCACGC
 TCTTTGTGCTGGCCGTGCTGCTCCAGTTTTATTCTTGTCTACCGGCACCGAACAGCATGAAAGTCTT
 CCTGAAGCAGGGGAATGTGCCAGCGTGCACCCAAAGACCTGCCCTGTGGTGTGCCCCCTGAGACCCGC
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 CCCCAGGGGCCGAGTCTTCACTGAGTCAAGAGAGGCCACTCAGCATCAAGACAGCTTCGTGGAGGT
 ATCCCCAGTGTGCCCGGCCCGGGTCCGCCTTGGCTCGGAGATCCGTGACTCTGTGGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216548 representing NM_020210
Red=Cloning site Green=Tags(s)

MLRTAMGLRSWLAAPWGALPPRPPLLLLLLLLLLLLLLQPPPTWALSPRISLPLGSEERPFLRFEAEHISNY
TALLLSRDGRTL YVGAREALFALSSNL SFLPGGEYQELLWGADAEKKQQCSFKGKDPQRDCQNYIKILLP
LSGSHLFTCGTAAFSPMCTYINMENFTLARDEKGNVLEEDGKGRCPFDPNFKSTALVVDGELYTGTVSSF
QGNDPAISRSQSLRPTKTESSLNWLQDPAFVASAYIPESLGSLLQGDDEKIIYFFFSETGQEFEEFFENTIVS
RIARICKGDEGGERVLQQRWTSFLKAQLLCSRPDGPFNFVLDVFTLSPSPQDWRDTLFGVFTSQWHR
GTTEGSAVCVFTMKDVQRVFSGLYKEVNRETQQWYTVTHPVPTPRPGACITNSARERKINSSLQLPDRVL
NFLKDHFLMDGQVRSRMLLLQPQARYQRVAVHRVPLHHTYDVLFLGTGDGRLHKAVSVGPRVHIEELQ
IFSSGQPQNLLLDTHRGLLYAASHSGVVQVPMANCSLYRSCGDCLLARDPYCAWSGSSCKHVSLYQPQL
ATRPWIQDIEGASAKDLCSASSVSPSFVPTGEKPCEQVQFQPNTVNTLACPLLSNLATRLWLRNGAPVN
ASASCHVLPDGLLLVGTQQLGEFQCWSLEEGFQQLVASYCPEVVEDGVADQDDEGGSVPVIISTSRVSA
PAGGKASWGADRSYWKFLVMCTLFVLAVLLPVLLYRHRNSMKVFLKQGECAVHPKTCPPVLPPEPTR
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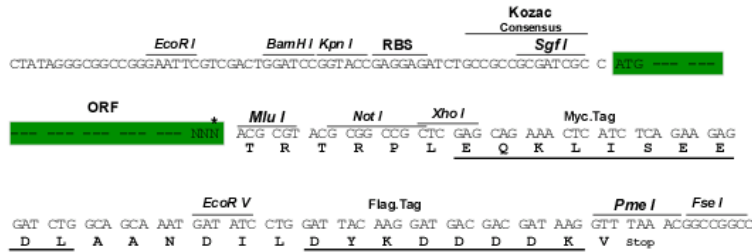
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6692_b07.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_020210

ORF Size: 2511 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_020210.4](#)

RefSeq Size: 3843 bp

RefSeq ORF: 2514 bp

Locus ID: 10509

UniProt ID: [Q9NPR2](#)

Cytogenetics: 15q26.1

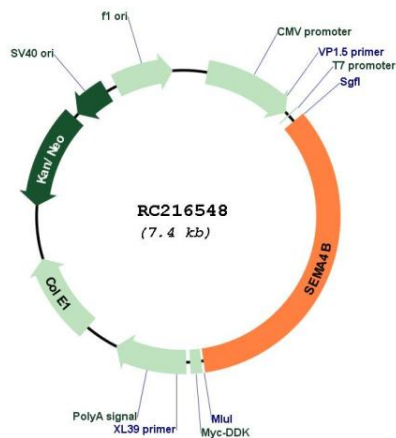
Protein Families: Transmembrane

Protein Pathways: Axon guidance

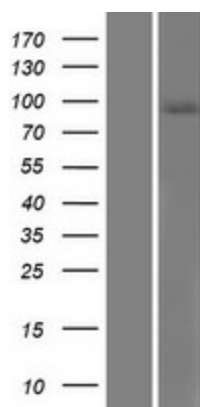
MW: 92.6 kDa

Gene Summary: Inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons.[UniProtKB/Swiss-Prot Function]

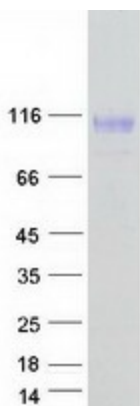
Product images:



Circular map for RC216548



Western blot validation of overexpression lysate (Cat# [LY412595]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216548 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SEMA4B protein (Cat# [TP316548]). The protein was produced from HEK293T cells transfected with SEMA4B cDNA clone (Cat# RC216548) using MegaTran 2.0 (Cat# [TT210002]).