

## Product datasheet for RC217352

### SEMA6A (NM\_020796) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA6A (NM_020796) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SEMA6A
Synonyms:	HT018; SEMA; SEMA6A1; SEMAQ; VIA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217352 representing NM_020796 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGGTCAGAAGCCTTGCTGCTATATTTCACTGCTACACTTTGCTGGGGCTGGTTCCAGAAAGATT  
CTGAGCCAATCAGTATTTTCGCATGGCAACTATACAAAACAGTATCCGGTGTGGGGCCACAAGCCAGG  
ACGGAACACCACAGAGGCACAGGCTGGACATCCAGATGATTATGATCATGAACGGAACCTCTACATT  
GCTGCTAGGGACCATATTTATACTGTTGATATAGACACATCACACACGGAAGAAATTTATTGTAGCAAAA  
AACTGACATGAAATCTAGACAGGCCGATGTAGACACATGCAGAATGAAGGGAAAACATAAGGATGAGTG  
CCACAACCTTTATTAAGTTCTTTAAAGAAAAACGATGATGCATTGTTTGTCTGTGGAACATAATGCCTTC  
AACCTTCTCTGCAGAAACTATAAGATGGATACATTGGAACCATTCGGGGATGAATTCAGCGGAATGGCCA  
GATGCCCATATGATGCCAAACATGCCAACGTTGCACTGTTTGAGATGGAAAACATACTCAGCCACAGT  
GACTGACTTCCTTGCCATTGACGCAGTCAATTTACCGGAGTCTGGAGAAAGCCCTACCCTGCGGACCGTC  
AAGCACGATTCAAAATGGTTGAAAGAACCATACTTTGTTCAAGCCGTGGATTACGGAGATTATATCTACT  
TCTTCTCAGGGAAATAGCAGTGGAGTATAACACCATGGGAAAGGTAGTTTTCCCAAGAGTGGCTCAGGT  
TTGAAGTATGATATGGGAGGATCTCAAAGAGTCTGGAGAAACAGTGGACGTCGTTCTGAAGGCGCGC  
TTGAACTGCTCAGTTCCTGGAGACTCTCATTTTTATTTCACACTTCTCCAGGCAGTTACAGATGTGATTC  
GTATCAACGGCGTGATGTTGCTCTGGCAACGTTTTCTACACCTTATAACAGCATCCCTGGGTCTGCAGT  
CTGTGCCTATGACATGCTTGACATTGCCAGTGTTTTTACTGGGAGATTCAAGGAACAGAAGTCTCTGAT  
TCCACCTGGACACCAGTTCCTGATGAACGAGTTCCTAAGCCAGGCCAGGTTGCTGTGCTGGCTCATCCT  
CCTTAGAAAGATATGCAACCTCCAATGAGTTCCTGATGATACCTGAACCTCATCAAGACGCCCCGCT  
CATGGATGAGGCAGTGCCTCCATCTTCAACAGGCCATGGTTCCTGAGAACAATGGTCAGATACCGCCTT  
ACCAAAATTCAGTGGACACAGCTGCTGGCCATATCAGAATCACACTGTGGTTTTCTGGGATCAGAGA  
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GGAGATGAGTGTTCACACTCTGAAAAATGCAGCTATGATGGAGTGAAGACAAAAGGATCATGGGCATG



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CAGCTGGACAGAGCAAGCAGCTCTCTGTATGTTGCGTTCTCTACCTGTGTGATAAAGGTTCCCCTTGCC  
 GGTGTGAACGACATGGGAAGTGTAAAAAACCCTGTATTGCCTCCAGAGACCCATATTGTGGATGGATAAA  
 GGAAGGTGGTGCCTGCAGCCATTATCACCCAACAGCAGACTGACTTTTGAGCAGGACATAGAGCGTGGC  
 AATACAGATGGTCTGGGGGACTGTACAATTCCTTTGTGGCACTGAATGGGCATTCCAGTTCCTCTTGC  
 CCAGCACAACCACATCAGATTCGACGGCTCAAGAGGGGTATGAGTCTAGGGGAGGAATGCTGGACTGGAA  
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 GCGCAAAGACGTGGCTGTGGTGCAGCGCAAGGAGAAGGAGCTCACCCACTCGCGCCGGGGCTCCATGAGC  
 AGCGTCACCAAGCTCAGCGGCCTCTTTGGGGACTCAATCCAAAGACCCAAAGCCGGAGGCCATCTCA  
 CGCCACTCATGCACAACGGCAAGCTCGCCACTCCCGGCAACACGGCAAGATGCTCATTAAAGCAGACCA  
 GCACCACCTGGACCTGACGGCCCTCCCCACCCAGAGTCAACCCCAACGCTGCAGCAGAAGCGGAAGCCC  
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 CCAACCATGGGGTGAACCTTGTGGAGAACCTGGACAGCCTGCCCCCAAAGTCCACAGCGGGAGGCCCTC  
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 TCAAAAAGAAACAACACTAACTCCTCAATTCTCTCACCTCTCCAGAAACAGAGCTTTGGCAGGGGAGA  
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 GTGACTGTCTCGAGGCAGCCAGCCTCAACGCCTACAACCTACTGACAAGGTGGGGCTGAAGCGTACGC  
 CCTCGCTAAAGCCGGACGTACCCCCAAACCATCCTTTGCTCCCCTTTCCACATCCATGAAGCCCAATGA  
 TCGGTGTACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC217352 representing NM\_020796  
 Red=Cloning site Green=Tags(s)

MRSEALLLYFTLLHFAGAGFPEDSEPISSHNYTKQYPVFGHKPGRNTTQRHRLDIQMIMMNGTLYI  
 AARDHIYTVIDTSHTEEIIYCSKLTWKSQADVDTCRMKGKHKDECHNFIKVLLKKNDDALFVCGTNAF  
 NPSCRNYKMDTLEPFDEFSGMARCPYDAKHANVALFADGKLYSATVTDFLAIDAVIYRSLGESPTLRTV  
 KHDSKWLKEPYFVQAVDYGDIYFFFREIAVEYNTMGKVVPRVAQVCKNDMGGSQRVLEKQWTSFLKAR  
 LNCVPGDSHFYFNILQAVTDVIRINGRDVVLATFSTPYNSIPGSAVCAYDMLDIASVFTGRFKEQKSPD  
 STWTPVDERVPKPRPGCCAGSSSLERYATSNEFPDNTLNFIKTHPLMDEAVPSIFNRPWFLRTMVRYL  
 TKIAVDTAAGPYQNHTVVFLGSEKGIILKFLARIGNSGFLNDSLFEEMSVYNSEKCSYDGVEDKRIMGM  
 QLDRASSLYVAFSTCVIKVPLGRCERHGKCKTCIASRPYCGWIKEGGACSHLSPNSRLTFEQDIERG  
 NTDGLGDCHNSFVALNGHSSLLPSTTTSDSTAQEGYERGGMLDWKHLLDSPDSTDPLGAVSSHNHQDK  
 KGVIRESYLKGHDQLVPVTLAIAVILAFVMGAVFSGITVYCVCDHRRKDVAVVQRKEKELTHSRRGMS  
 SVTKLSGLFGDTQSKDPKPEAILTPLMHNGKLATPGNTAKMLIKADQHLLDLTALPTPESTPLQQRKP  
 SRGSREWERNQNLINACTKDMPPMGSPVPTDLPLRASPHIPSVVVLPIQGGYQHEYVDQPKMSEVAQ  
 MALEDQAATLEYKTIKEHLSSKSPNHGVNLVENLDSLPPKVPQREASLGPPGASLSQTGLSKRLEMHHSS  
 SYGVYKRSYPTNSLTRSHQATTLKRNTNSNSHLSRNQSFGRGNPPPAPQRVDSIQVHSSQPSGQA  
 VTVSRQPSLNAYNSLTRSGLKRTPSLKPDPVPPKPSFAPLSTSMKPNDACT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8119\\_f09.zip](https://cdn.origene.com/chromatograms/mk8119_f09.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_020796

**ORF Size:** 3090 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](mailto: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](#)

**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\\_020796.5](#)

**RefSeq Size:** 6860 bp

**RefSeq ORF:** 3093 bp

**Locus ID:** 57556

**UniProt ID:** [Q9H2E6](#)

**Cytogenetics:** 5q23.1

**Domains:** Sema

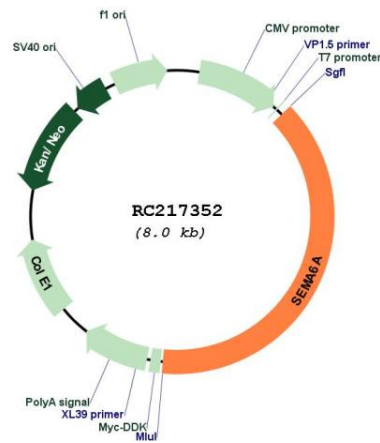
**Protein Families:** Transmembrane

**Protein Pathways:** Axon guidance

**MW:** 114.8 kDa

**Gene Summary:** The transmembrane semaphorin SEMA6A is expressed in developing neural tissue and is required for proper development of the thalamocortical projection (Leighton et al., 2001 [PubMed 11242070]).[supplied by OMIM, Feb 2011]

### Product images:



Circular map for RC217352