

Product datasheet for **SC128157**

SEMA4A (NM_022367) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA4A (NM_022367) Human Untagged Clone
Tag:	Tag Free
Symbol:	SEMA4A
Synonyms:	CORD10; RP35; SEMAB; SEMB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC128157 sequence for NM_022367 edited (data generated by NextGen Sequencing)

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ATGGCCCTCCCAGCCCTGGGCCTGGACCCCTGGAGCCTCCTGGGCCTTTTCCTCTTCCAA
CTGTTTACAGTGTCTGCCGACGACGACCCGCGGGGGAGGCGGGCAGGGGCCATGCC
AGGGTCAGATACTATGCAGGGGATGAACGTAGGGCACTTAGCTTCTTCCACCAGAAGGG
CTCCAGGATTTTGACACTCTGCTCCTGAGTGGTATGAAATACTCTCTACGTGGGGCT
CGAGAAGCCATTCTGGCCTTGGATATCCAGGATCCAGGGTCCCCAGGCTAAAGAACATG
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GAGACACAGTGTTTCAACTTCATCCGTGTCTGGTTTCTTACAATGTCACCCATCTCTAC
ACCTGCGGCACCTTCGCCTTCAGCCCTGCTTGTACCTTATTGAACTTCAAGATTCTTAC
CTGTTGCCATCTCGGAGGACAAGGTGATGGAGGAAAAGGCCAAAGCCCTTTGACCCC
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CAAGTGGTGGGACGCCCTGCTGGTGAATCTGGCGTGGAGTATACACGGCTTGCAAGT
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ACCCTGCGCCCTGGGAGAAGGCCCGTTAAGCAGAGAGCAACACCTCCAGTCTCCCAAG
GAATGCAGGACCTCTGCCAGTGTGTGGACGCTGACAACAACCTGCCTAGGCACTGAGGTA
GCTTAA

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Clone variation with respect to NM_022367.3
1716 c=>t

5' Read Nucleotide Sequence: >OriGene 5' read for NM_022367 unedited
TGTATACGACTCATATAGGCGGCCGCAATTCGGCACGAGGCTGGCTTTGGCATGATGGG
CACCTGGAGGGCCGCACTCCCCTTCCAGCCAGGCTGAGCCTTCTGTCCCCTGCCTCTGGG
GCCTGGGAACCCCTTCTTCTTCTCCTGAATGGCACCCCGCCCTAGAATCCAGACAC
CGAGTTTCCCCTGTGGCTGGTTCAAGGAGCTCCCTGGTGACAGTCTGTGGCTGAGCATG
GCCCTCCCAGCCCTGGGCTGGACCCCTGGAGCCTTCTGGGCTTTTCTCTCCCAACTG
CTTCAGTGTCTGCTGCCGACACCACCGGGGGGAGGCGGGCAGGGGCCATGCCCAGG
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AACACAGGTTTCACTCCATCCGCGTCTGGCTTCTTACAATGCACCCATCTCTACACC
CTGCGGAACCTTCCCCTTAACCCTGCTTGCCCTTCTTGAAATTCGACTCTACCT
GGTGCCACCTTGACAGCAATGCTACTGCGGGAAAAGCCAAACCCCTTGGCCCGTTC
CCAACCTACGGCTTGTCTCGTGGAGTGGAGGCCCTTTTGGGATACGAAAAATTCCTTG
GCAGTGGCCCTTCTGATGCCACTGGGACCCACTCTGTCTAAACCGCCACCTTCTCC
CTGGCTCGATATGAACCCCTTGGGGCAGACTCCCT

3' Read Nucleotide Sequence: >OriGene 3' read for NM_022367 unedited
TANGATCCGGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAACCCTTATATTTT
AATAAAAAATAAACAGTCTCTGACAAGCAGTTTTCTGAATCCCAAACAAAGGAAAAGGG
AGGGGGAGAGGTGAAGGGTCAAGGATAGGTAAGGAGTGAAGAAGGCTCAGATTACCCCT
GCCATTCTGCCAGGGCAGAAGGGATCAGAGTCTGCCCAACTGAAGCAAGAAGAAAGGTG
GTCAGACTTCAGGGAAGACTTCCCTGGGAGTCAAGGGTGCACGACTGGTAAGGGAAGCAGG
AGGGAGCAGATCCCTGCATGACCCTGGGAGAAGGGAGTGTGGTGTCAAAGCGGCAGCT
TCAGAGTGGAGTTTCCAGGAGTGGCATGTTAGCATATGATTGTTTAGATGTTTGGTGTTC
ATTACCATAGGGTCTGGGACAGGCAGGTTTTTTAGGGTCTCTTGAAACTGTGTTTCT
GGAGGGTCCCTGGAATGGCCAGAAGTGAAGGATCCTCTCCAGGTTCTTCAATATCAGTGT
AGGACAGGTCTGGGGTAGCCCCACCCTGTTAGAGAGCTCATGTGCTTGGTAGAAGGG
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AGTAGCAGAAGCTCCTCTCAGGGGAGAAAGGTGGTCTTTTGTGCTGCTGTATCCTAGTC
AGGGCTGGGCTTGGCCCGCCAGCCAGCATGGCCAGGTGCCTGGACCGGAACCCCGGCT
GGGCTAGAAGTTTAGCTACCCAGTGCCTAAGCCGTTGGTGTACAGCTCCACATCACTG
GCAGAAGTCTGGCATCTTTGGAGACTGGG

Restriction Sites: ECoRI-NOT

ACCN: NM_022367

Insert Size: 3900 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_022367.2](#), [NP_071762.2](#)

RefSeq Size: 3257 bp

RefSeq ORF: 2286 bp

Locus ID: 64218

UniProt ID: [Q9H3S1](#)

Cytogenetics: 1q22

Domains: Sema, PSI, PSI

Protein Families: Transmembrane

Protein Pathways: Axon guidance

Gene Summary: This gene encodes a member of the semaphorin family of soluble and transmembrane proteins. Semaphorins are involved in numerous functions, including axon guidance, morphogenesis, carcinogenesis, and immunomodulation. The encoded protein is a single-pass type I membrane protein containing an immunoglobulin-like C2-type domain, a PSI domain and a sema domain. It inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons. It is an activator of T-cell-mediated immunity and suppresses vascular endothelial growth factor (VEGF)-mediated endothelial cell migration and proliferation in vitro and angiogenesis in vivo. Mutations in this gene are associated with retinal degenerative diseases including retinitis pigmentosa type 35 (RP35) and cone-rod dystrophy type 10 (CORD10). Multiple alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Sep 2010]
Transcript Variant: This variant (1) is the longest transcript. Variants 1-3 encode the same isoform (1).