

Product datasheet for **MC222152**

Sema4d (NM_013660) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sema4d (NM_013660) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sema4d
Synonyms:	CD100; coll-4; Semacl2; Semaj; Semcl2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC222152 representing NM_013660
 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGATGTGTGCCCCCGTTAGGGGGCTGTTCTTGCCCTGGTGGTAGTGTGAGAACC CGGTGGCAT
 TTGCACCTGTGCCTCGGCTCACCTGGAACATGGAGAGGTAGGTCTGGTGCAGTTTCACAAGCCAGGCAT
 CTTAACTACTCGCCTTCTGTAGTGAAGCAAAAGACTCTGTATGTAGGCGCCGGGAAGCAGTC
 TTTGCAGTGAATGCGCTGAACATCTCTGAGAAGCAACATGAGGTATATTGGAAGTCTCTGAAGACAAAA
 AATCCAAGTGTGCAGAGAAGGGGAAATCAAAGCAGACGGAATGCCTAACTACATTTCGAGTACTACAGCC
 ACTAAGCAGCACTTCCCTCTATGTGTGGGACCAATGCGTTCAGCCACCTGTGACCACCTGAACCTG
 ACATCCTCAAGTTTCTGGGAAAAGTGAAGATGGCAAAGGAAGATGCCCTTCGACCCCGCCACAGCT
 ACACATCAGTCATGGTTGGGGCGAGCTCTACTCTGGGACGTCTATAATTTCTGGGCAGTGAACCCAT
 CATCTCTCGAACTTCCACAGTCCCTTGAGGACGGAGTATGCCATCCCGTGGCTGAACGAGCCTAGC
 TTCGTCTTGGTACGTGATCCAGAAAAGCCAGATGGTCCGGAGGGTGAAGATGACAAGGTCTACTTCT
 TTTTTACGGAGGTATCCGTGGAGTACGAATTCGTCTTCAAGTTGATGATCCCGCAGTTGCCAGGGTGTG
 CAAGGGCGACCAGGGCGGCTGCGGACTTTGCAAAAAAGTGGACCTCCTTCTAAAGGCCAGGCTGATC
 TGCTCCAAGCCAGACAGTGGCCTGGTCTTCAACATACTTCAGGATGTGTTTGTGCTGAGGGCCCCGGCC
 TCAAGGAGCCTGTGTTCTATGCGGTCTTCAACCCACAGCTGAACAATGTGGGTCTGTGAGCGGTGTGCGC
 CTACACACTGGCCAGGTGGAGGAGTCTTCTCCCGTGGAAAGTACATGCAGAGTCCACAGTGGAGCAG
 TCTCACACCAAGTGGGTGCGCTACAATGGCCAGTGGCCACTCCCGACCTGGAGCGTGTATCGACAGTG
 AGGCCGGGCAGCCAACACACCACTCTTGAATCTCCAGACAAAACACTGCGAGTTTGTAAAAGACCA
 CCCTTTGATGGATGACTCAGTGACCCCGATAGACAACAGACCCAAGCTGATCAAAAAAGATGTAACCTAC
 ACCCAGATAGTGGTAGACAGGACCCAGGCCCTGGATGGGACTTTCTACGACGTCTGTTTCATCAGCACAG
 ACCGGGGAGCTCTGCATAAAGCAGTCACTCACAAGAGAGGTGCATGTCATCGAGGAGACCCAACCTCTT
 CCGGGACTCTGAACCGTCTAACTCTGCTGCTATCGTCAAAGAAGGGGAGGAAGTTTGTCTATGCAGGC
 TCCAACCTGGAGTGGTCCAAGCGCCCTGGCATTCTGCGAAAAGCACGGTAGCTGTGAAGACTGTGTGT
 TAGCACGGGACCCCTACTGTGCCTGGAGCCAGCCATCAAGGCCTGTGTTACCCTGCACCAGGAAGAGGC
 CTCCAGCAGGGGTGGATTTCAGGACATGAGCGGTGACACATCCTCATGCCTGGATAAGAGTAAAGAAAGT
 TTCAACCAGCATTTTTCAAGCACGGCGGCACAGCGGAACTCAAATGTTTCCAAAAGTCCAACCTAGCCC
 GGGTGGTATGAAAGTCCAGAATGGCGAGTTGAAGGCCGCAAGTCCCAAGTACGGCTTTGTGGGCAGGAA
 GCACCTGCTCATTTCAACCTGTGCGACGGAGACAGCGCGTGTACCAGTGCCTGTGAGAGGAAAGGGTG
 AGGAATAAAACGGTCTCCAGCTGCTGGCCAAGCACGTTCTGGAAGTGAAGATGGTACCTCGGACCCCC
 CCTCACCTACCTCAGAGGATGCTCAGACAGAAGGTAGTAAGATCACATCCAAAATGCCGGTTGCATCTAC
 CCAGGGTCTCTCCCCTACCCCGCTCTGTGGGCAACCTCCCCAGAGCCGCCACCCTACCTCCCAAG
 TCCTCTCCGGCACATCCTGTGAACCAAGATGGTCATCAACACGGTCCCCAGCTCCACTCAGAGAAGA
 CGGTGTATCTCAAGTCCAGTGACAACCGCTGCTCATGTCTCTCTCTTCTTCTTGTCTCTTCTCTCT
 CTGCCTTTTTCTACAACCTGCTACAAGGGTACCTGCCCGACAGTGCCTAAAATCCGCTCAGCCCTG
 CTGCTTGGAAAGAAAACACCCAAGTCAAGTCTCTGACCTGGAGCAGAGTGTGAAGGAGACATGGTTCG
 AGCCTGGGAGCTTCTCCAGCAGAACGGCGACCACCCAAAGCCAGCCCTGGATACGGGCTATGAAACGGA
 GCAGGACACCATCACCAGCAAAGTCCCCACGGATCGTGAGGACTCGAACGGATCGATGAACTCTCTGCC
 CGGGACAAACCGTTTGTGATGCAAGTGTGAACTGAAGTTTGCAGATTTCGGATGCTGACGGGGACTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_013660
Insert Size: 2586 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 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](#)

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: [BC049780](#), [AAH49780](#)

RefSeq Size: 4407 bp

RefSeq ORF: 2586 bp

Locus ID: 20354

UniProt ID: [O09126](#)

Cytogenetics: 13 A5

Gene Summary:

Cell surface receptor for PLXNB1 and PLXNB2 that plays an important role in cell-cell signaling (By similarity). Regulates GABAergic synapse development (PubMed:23699507, PubMed:29981480). Promotes the development of inhibitory synapses in a PLXNB1-dependent manner (PubMed:23699507, PubMed:29981480). Modulates the complexity and arborization of developing neurites in hippocampal neurons by activating PLXNB1 and interaction with PLXNB1 mediates activation of RHOA (By similarity). Promotes the migration of cerebellar granule cells (PubMed:17554007). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (By similarity). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks an alternate exon in the 5' UTR compared to variant 1. Variants 1 and 2 both encode the same protein. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.