

Product datasheet for **MR231273**

Sema4d (NM_001281880) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sema4d (NM_001281880) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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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ORF Nucleotide Sequence:

>MR231273 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGATGTGTGCCCCCGTTAGGGGGCTGTTCTTGCCCTGGTGGTAGTGTGAGAACC CGGTGGCAT
 TTGCACCTGTGCCTCGGCTCACCTGGAACATGGAGAGGTAGGTCTGGTGCAGTTTCACAAGCCAGGCAT
 CTTAACTACTCGCCTTCTGTAGTGAAGCAAAAGACTCTGTATGTAGGCGCCGGGAAGCAGTC
 TTTGCAGTGAATGCGCTGAACATCTCTGAGAAGCAACATGAGGTATATTGGAAGTCTCTGAAGACAAA
 AATCCAAGTGTGCAGAGAAGGGGAAATCAAAGCAGACGGAATGCCTAACTACATTTCGAGTACTACAGCC
 ACTAAGCAGCACTTCCCTCTATGTGTGTGGACCAATGCGTTCAGCCACCTGTGACCACCTGAACCTG
 ACATCCTCAAGTTTCTGGGAAAAGTGAAGATGGCAAAGGAAGATGCCCTTCGACCCCGCCACAGCT
 ACACATCAGTCATGGTTGGGGCGAGCTCTACTCTGGGACGTCTATAATTTCTGGGCAGTGAACCCAT
 CATCTCTCGAACTTCCACAGTCCCTTGAGGACGGAGTATGCCATCCCGTGGCTGAACGAGCCTAGC
 TTCGTCTTGGTACGTGATCCAGAAAAGCCAGATGGTCCGGAGGGTGAAGATGACAAGGTCTACTTCT
 TTTTTACGGAGGTATCCGTGGAGTACGAATTCGTCTTCAAGTTGATGATCCCGCAGTTGCCAGGGTGTG
 CAAGGGCGACAGGGCGGCTGCGGACTTTGCAAAAAAGTGGACCTCCTTCTAAAGGCCAGGCTGATC
 TGCTCCAAGCCAGACAGTGGCCTGGTCTTCAACATACTTCAGGATGTGTTTGTGCTGAGGGCCCCGGCC
 TCAAGGAGCCTGTGTTCTATGCGGTCTTCAACCCACAGCTGAACAATGTGGGTCTGTGAGCGGTGTGCGC
 CTACACACTGGCCACGGTGGAGGAGTCTTCTCCCGTGGAAAGTACATGCAGAGTGCACAGTGGAGCAG
 TCTCACACCAAGTGGGTGCGCTACAATGGCCAGTGGCCACTCCCGACCTGGAGCGTGTATCGACAGTG
 AGGCCGGGCAGCCAACACACCACTCCTTGAATCTCCAGACAAAACACTCGAGTTTGTAAAAGACCA
 CCCTTTGATGGATGACTCAGTGACCCCGATAGACAACAGACCCAAGCTGATCAAAAAAGATGTAACCTAC
 ACCCAGATAGTGGTAGACAGGACCCAGGCCCTGGATGGGACTTTCTACGACGTCTGTTTCATCAGACAG
 ACCGGGGAGTCTGCATAAAGCAGTCACTCACAAGAGAGGTGCATGTCATCGAGGAGACCCAACCTCTT
 CCGGGACTCTGAACCGTCTAACTCTGCTGCTATCGTCAAAGAAGGGGAGGAAGTTTGTCTATGCAGGC
 TCCAACCTGGAGTGGTCCAAGCGCCCTGGCATTCTGCGAAAAGCACGGTAGCTGTGAAGACTGTGTGT
 TAGCACGGGACCCCTACTGTGCCTGGAGCCAGCCATCAAGGCCTGTGTTACCCTGCACCAGGAAGAGGC
 CTCCAGCAGGGGCTGGATTCAAGACATGAGCGGTGACACATCCTCATGCCTGGATAAGAGTAAAGAAAGT
 TTCAACCAGCATTTTTCAAGCACGGCGGCACAGCGGAACCAAAATGTTTCCAAAAGTCCAACCTAGCCC
 GGGTGGTATGAAAGTCCAGAATGGCGAGTTGAAGGCCGCAAGTCCCAAGTACGGCTTTGTGGGCAGGAA
 GCACCTGCTCATTTCAACCTGTGCGACGGAGACAGCGCGTGTACCAGTGCCTGTGAGAGGAAAGGGTG
 AGGAATAAAACGGTCTCCAGCTGCTGGCCAAGCACGTTCTGGAAGTGAAGATGGTACCTCGGACCCCC
 CCTCACCTACCTCAGAGGATGCTCAGACAGAAGGTAGTAAAGTACATCCAAAATGCCGGTTGCATCTAC
 CCAGGGTCTCTCCCCTACCCCGCTCTGTGGGCAACCTCCCCAGAGCCGCCACCTACCTCCCAAG
 TCCTCTCCGGCACATCCTGTGAACCAAGATGGTCATCAACACGGTCCCCAGCTCCACTCAGAGAAGA
 CGGTGTATCTCAAGTCCAGTGACAACCGCTGCTCATGTCTCTCTCTTCTTCTTCTTCTTCTTCTTCT
 CTGCCTTTTTCTACAACCTGCTACAAGGGTACCTGCCCGACAGTGCCTAAAATTCGGCTCAGCCCTG
 CTGCTTGGAAAGAAAACACCCAAGTCAAGTCTCTGACCTGGAGCAGAGTGTGAAGGAGACACTGGTTCG
 AGCCTGGGAGCTTCTCCAGCAGAACGGCGACCCCAAGCCAGCCCTGGATACGGGCTATGAAACGGA
 GCAGGACACCATCACCAGCAAAGTCCCCACGGATCGTGAGGACTCGAACGGATCGATGAACTCTTGCC
 CGGGACAAACCGTTTGTGCAAGTGTGAACTGAAGTTTGCAGATTCCGGATGCTGACGGGGAC

ACCGTACGGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231273 protein sequence
 Red=Cloning site Green=Tags(s)

MRMCAPVRGLFLALVVVLR TAVAFAPVPRLTWEHGEVGLVQFHKPGIFNYSALLMSEDKDTLYVGAREAV
 FAVNALNISEKQHEVYWKVSEDKKSKCAEKGKSKQTECLNYIRVLQPLSSTSLYVCGTNAFQPTCDHLNL
 TSFKFLGKSEDKGRCPFDPAHSYTSVMVGGEL YSGTSYNFLGSEPIISRNSHSPLRTEYAIPWLNEPS
 FVFADVIQKSPDPEGEDDKVYFFTEVSVYEYEFVFKLMIPRVARVCKGDQGLRTLQKKWTSFLKARLI
 CSKPDSGLVFNILQDVFVLRAPGLKEPVFVAVFTPQLNNVGLSAVCAYTLATVEAVFSRGKYMQSATVEQ
 SHTKWVRYNGPVPTPRPGACIDSEARAANYTSSLNLPDKTLQFVKDHPLMDDSVTPIDNRPKLIKDDVNY
 TQIVVDR TQALDGT FYDVMFISTDRGALHKAVILTKEVHVIEETQLFRDSEPVLTLLSSKKGRKFVYAG
 SNSGVVQAPLAFCEKHGSCEDCVLARDPYCAWSPAIAKACVTLHQEEASSRGWIQDMSGDTSSCLDKSKES
 FNQHFFKHGGTAELKCFQKSNLARVVMKFNQNGELKAASPKYGFVGRKHLLIFNLSDGDSGVYQCLSEERV
 RNKTVSQLLAKHVLEVKMVPRTPPSPTSEDAQTEGSKITSKMPVASTQGSSPPTPALWATSPRAATLPPK
 SSSGT SCEPKMINTV PQLHSEKTVYLKSSDNRLMLSLLLFIFVLFCLFSYNCYKGYLPGQCLKFRSAL
 LLGKKT PKSDFS DLEQSVKETLVEPGSF SQQNGDHPKALDTGYETE QDTITSKVPTDREDSQRIDELSA
 RDKPFDVKCELKFADSDADGD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

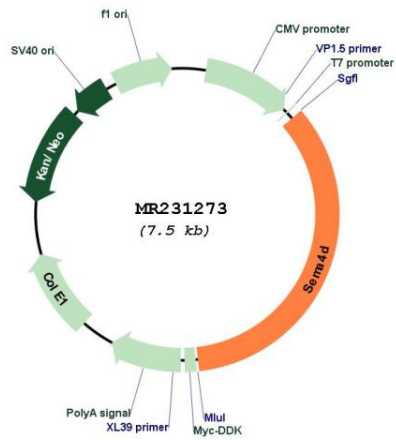
Sgfl-MluI

Cloning Scheme:



ACCN:	NM_001281880
ORF Size:	2586 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:	<ol style="list-style-type: none">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_001281880.2
RefSeq Size:	4555 bp
RefSeq ORF:	2586 bp
Locus ID:	20354
UniProt ID:	O09126
Cytogenetics:	13 A5
MW:	95.6 kDa
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]

Product images:



Circular map for MR231273