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Product datasheet for RC227403

Semaphorin 4D (SEMA4D) (NM_001142287) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Semaphorin 4D (SEMA4D) (NM_001142287) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Semaphorin 4D
Synonyms:	A8; BB18; C9orf164; CD100; coll-4; COLL4; GR3; M-sema-G; SEMAJ
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC227403 representing NM_001142287
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGGATGTGCACCCCCATTAGGGGGCTGCTCATGGCCCTTGCAGTGATGTTTGGGACAGCGATGGCAT
TTGCACCCATACCCCGGATCACCTGGGAGCACAGAGAGGTGCACCTGGTGCAGTTTCATGAGCCAGACAT
CTACAACTACTCAGCCTTGCTGCTGAGCGAGGACAAGGACACCTTGTACATAGGTGCCCGGGAGGCGGTC
TTCGCTGTGAACGCACTCAACATCTCCGAGAAGCAGCATGAGGTGTATTGGAAGGTCTCAGAAGACAAAA
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ACATCCTTTAAGTTTCTGGGGAAAAATGAAGATGGCAAAGGAAGATGTCCCTTTGACCCAGCACACAGCT
ACACATCCGTCATGGTTGATGGAGAACTTTATTCGGGGACGTCGTATAATTTTTTGGGAAGTGAACCCAT
CATCTCCCGAAATTCTTCCCACAGTCCTCTGAGGACAGAATATGCAATCCCTTGGCTGAACGAGCCTAGT
TTCGTGTTTGCTGACGTGATCCGAAAAAGCCCAGACAGCCCCGACGGCGAGGATGACAGGGTCTACTTCT
TCTTCACGGAGGTGTCTGTGGAGTATGAGTTTGTGTTCAGGGTGCTGATCCCACGGATAGCAAGAGTGTG
CAAGGGGGACCAGGGCGGCCTGAGGACCTTGCAGAAGAAATGGACCTCCTTCCTGAAAGCCCGACTCATC
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TGAAGGTGCCTGTGTTCTATGCACTCTTCACCCCACAGCTGAACAACGTGGGGCTGTCGGCAGTGTGCGC
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TCCCACACCAAGTGGGTGCGCTATAATGGCCCGGTACCCAAGCCGCGGCCTGGAGCGTGCATCGACAGCG
AGGCACGGGCCGCCAACTACACCAGCTCCTTGAATTTGCCAGACAAGACGCTGCAGTTCGTTAAAGACCA
CCCTTTGATGGATGACTCGGTAACCCCAATAGACAACAGGCCCAGGTTAATCAAGAAAGATGTGAACTAC
ACCCAGATCGTGGTGGACCGGACCCAGGCCCTGGATGGGACTGTCTATGATGTCATGTTTGTCAGCACAG
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TCTAACTCGGGCGTGGTCCAGGCCCCGCTGGCCTTCTGTGGGAAGCACGGCACCTGCGAGGACTGTGTGC
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GACATTCGCTTTGTCTGGGAGAAGAATGGGCGAGCTCTGGAGACCTGTGTCCCTGTGCAGACCCATGCAC
TGCCCGATGGCAGGGCCCATGCACTCAGCTGGCTGCAGGACGCCATCAGGGAAAGCGCTGAGTATCGCTG
CTCTGTCCTCTCCTCAGCAGGGAACAAGACTTCGAAGGTGCAGGTTGCTGTGATGAGACCTGAAGTGACC
CACCAGGAGAGGTGGACCAGAGAGCTCTCTGCCTGGAGGGCTGTGGCTGGGGAGCACGACCGGATGATGC
AGAGCTGGAGGAAGGCGTGGGAAAGCTGTAGCAAGGACACCCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227403 representing NM_001142287
Red=Cloning site Green=Tags(s)

MRMCTPIRGLLMALAVMFGTAMAFAPIPRITWEHREVHLVQFHEPDIYNYSALLLSEDKDTLYIGAREAV
FAVNALNISEKQHEVYWKVSEDKKAKCAEKGKSKQTECLNYIRVLQPLSATSLYVCGTNAFQPACDHLNL
TSFKFLGKNEDGKGRCPFDPAHSYTSVMVDGELYSGTSYNFLGSEPIISRNSSHSPLRTEYAIPWLNEPS
FVFADVIRKSPDSPDGEDDRVYFFFTEVSVEYEFVFRVLIPRIARVCKGDQGGLRTLQKKWTSFLKARLI
CSRPDSGLVFNVLRDVFVLRSPGLKVPVFYALFTPQLNNVGLSAVCAYNLSTAEEVFSHGKYMQSTTVEQ
SHTKWVRYNGPVPKPRPGACIDSEARAANYTSSLNLPDKTLQFVKDHPLMDDSVTPIDNRPRLIKKDVNY
TQIVVDRTQALDGTVYDVMFVSTDRGALHKAISLEHAVHIIEETQLFQDFEPVQTLLLSSKKGNRFVYAG
SNSGVVQAPLAFCGKHGTCEDCVLARDPYCAWSPPTATCVALHQTESPSRGLIQEMSGDASVCPASSPKP
LPPPGSSSLSCLGHVGDRRLSSPWTPWPASGAGPDSSSRVSLLPPFLSDQAQHVHALGNFYLFCQATGPA
DIRFVWEKNGRALETCVPVQTHALPDGRAHALSWLQDAIRESAEYRCSVLSSAGNKTSKVQVAVMRPEVT
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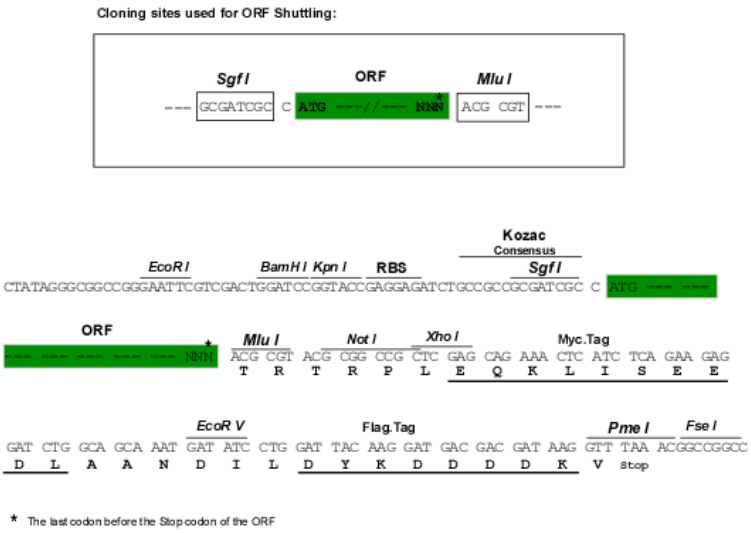
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001142287

ORF Size: 2214 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.

RefSeq: NM_001142287.2

RefSeq ORF: 2217 bp

Locus ID: 10507

UniProt ID: Q92854

Cytogenetics: 9q22.2

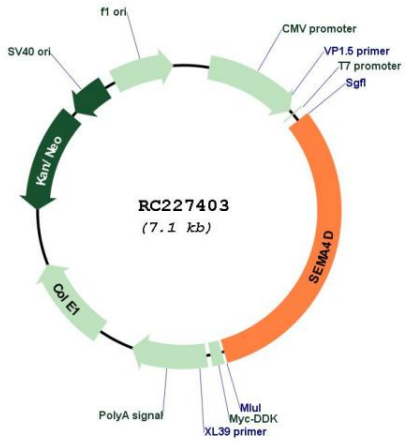
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Axon guidance

MW: 82 kDa

Gene Summary: Cell surface receptor for PLXNB1 and PLXNB2 that plays an important role in cell-cell signaling (PubMed:20877282). Regulates GABAergic synapse development (By similarity). Promotes the development of inhibitory synapses in a PLXNB1-dependent manner (By similarity). Modulates the complexity and arborization of developing neurites in hippocampal neurons by activating PLXNB1 and interaction with PLXNB1 mediates activation of RHOA (PubMed:19788569). Promotes the migration of cerebellar granule cells (PubMed:16055703). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed:8876214). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (PubMed:16055703). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC227403