

Product datasheet for **RC208521**

Semaphorin 4D (SEMA4D) (NM_006378) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Semaphorin 4D (SEMA4D) (NM_006378) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SEMA4D
Synonyms:	C9orf164; CD100; coll-4; COLL4; M-sema-G; SEMAJ
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide
Sequence:

>RC208521 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGGATGTGCACCCCCATTAGGGGGCTGCTCATGGCCCTTGCAAGTGTATTTGGGACAGCGATGGCAT
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Protein Sequence: >RC208521 protein sequence
Red=Cloning site Green=Tags(s)

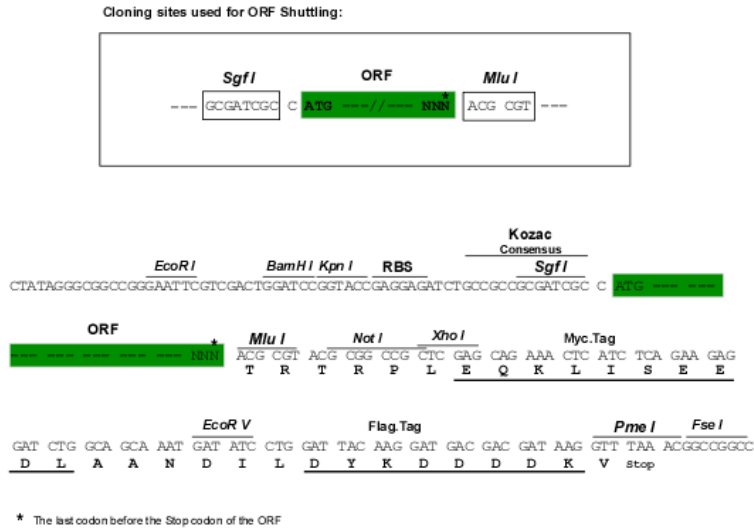
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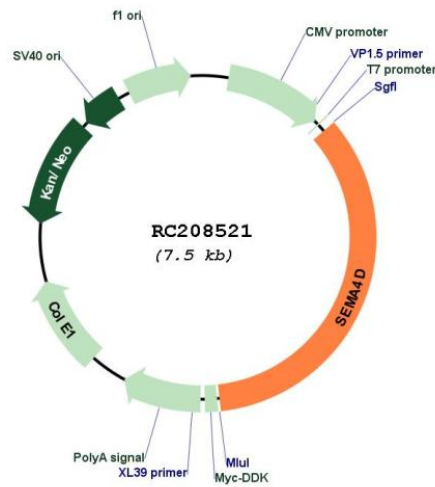
Chromatograms: https://cdn.origene.com/chromatograms/mk6091_e03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



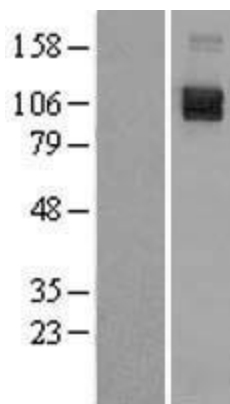
Plasmid Map:



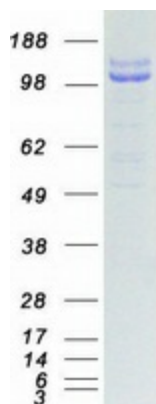
ACCN: NM_006378

ORF Size:	2586 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_006378.2 , NP_006369.2
RefSeq Size:	4642 bp
RefSeq ORF:	2589 bp
Locus ID:	10507
Domains:	Sema, PSI, ig, IG, PSI
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Axon guidance
MW:	96.2 kDa
Gene Summary:	<p>Cell surface receptor for PLXN1B and PLXNB2 that plays an important role in cell-cell signaling. Promotes reorganization of the actin cytoskeleton and plays a role in axonal growth cone guidance in the developing central nervous system. Regulates dendrite and axon branching and morphogenesis. Promotes the migration of cerebellar granule cells and of endothelial cells. Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro). Promotes signaling via SRC and PTK2B/PYK2, which then mediates activation of phosphatidylinositol 3-kinase and of the AKT1 signaling cascade. Interaction with PLXNB1 mediates activation of RHOA. [UniProtKB/Swiss-Prot Function]</p>

Product images:



Western blot validation of overexpression lysate (Cat# [LY416686]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208521 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SEMA4D protein (Cat# [TP308521]). The protein was produced from HEK293T cells transfected with SEMA4D cDNA clone (Cat# RC208521) using MegaTran 2.0 (Cat# [TT210002]).