

## Product datasheet for **RC210343**

### SEMA4G (NM\_017893) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA4G (NM_017893) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SEMA4G
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RC210343 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTGGGGGAGGCTCTGGCCCTCTCCTCAGCATCTCACAGCAACTGCAGTCCCAGGACCTCACTGC  
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 GGAAGCCTCCAGAGATGCAAAGCAAATGTCATCAAAAAGGGAAAAACAACCAGACGGAGTGCTTTAA  
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 GCTATGACTGCATCTTGGCCGAGACCCCTACTGTGGCTGGGACCCTGGCACCCATGCCTGCGCAGCAGC  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC210343 protein sequence  
 Red=Cloning site Green=Tags(s)

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MWGRLWPLLLSILTATAVPGPSLRRPSRELDATPRMTIPYEELSGTRHFKGQAQNYSTLLLEEASARLLV
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LCAAIDAEFTLPTSFEEGKEKCPYDPARGFTGLIIDGGLYTATRYEFRSIPDIRRSRPHSLRTEETPM
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QKKWTSFLKARLICHIPLYETLRGVCSLDAETSSRTHFYAAFTLSTQWKLEASAICRYDLAEIQAVFAG
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LKRNI RYTHLTGTPVTTAGPTYDLLFLGTADGWIHKAVVLGSGMHIIEETQVFRESQSVENLVISLLQH
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GCESSRDTGPPPLKTRSVLRGDDVLLPCDQPSNLARALWLLNGSMGLSDGQGGYRVGVDGLLVTDAPQE
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LYVACLREGRRRRRRKYSLGRASRAGGSVQLQTVSGQCPGEDEGDDEGAGGLEGSCLQIIPGEGAPAP
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SSV
  
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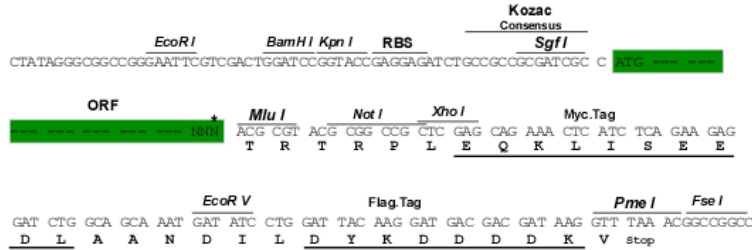
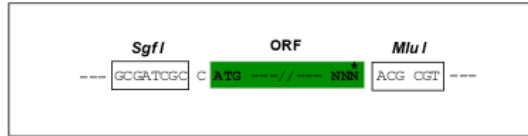
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_017893

**ORF Size:** 2529 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_017893.3](#)

**RefSeq Size:** 4415 bp

**RefSeq ORF:** 2532 bp

**Locus ID:** 57715

**UniProt ID:** [Q9NTN9](#)

**Cytogenetics:** 10q24.31

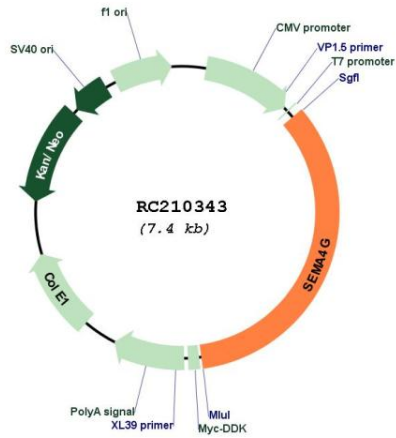
**Protein Families:** Transmembrane

**Protein Pathways:** Axon guidance

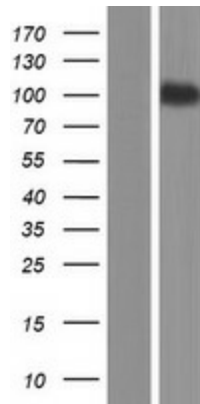
**MW:** 92 kDa

**Gene Summary:** Semaphorins are a large family of conserved secreted and membrane associated proteins which possess a semaphorin (Sema) domain and a PSI domain (found in plexins, semaphorins and integrins) in the N-terminal extracellular portion. Based on sequence and structural similarities, semaphorins are put into eight classes: invertebrates contain classes 1 and 2, viruses have class V, and vertebrates contain classes 3-7. Semaphorins serve as axon guidance ligands via multimeric receptor complexes, some (if not all) containing plexin proteins. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2011]

Product images:



Circular map for RC210343



Western blot validation of overexpression lysate (Cat# [LY413475]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210343 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).