

Product datasheet for **RG214172**

SEMA6D (NM_024966) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA6D (NM_024966) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SEMA6D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214172 representing NM_024966. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAGGGTCTTCCTGCTTTGTGCTACATACTGCTGCTGATGGTTTCCAGTTGAGGGCAGTCAGCTTT
CCTGAAGATGATGAACCCCTTAATACTGTGACTATCACTATTCAAGGCAATATCCGGTTTTAGAGGA
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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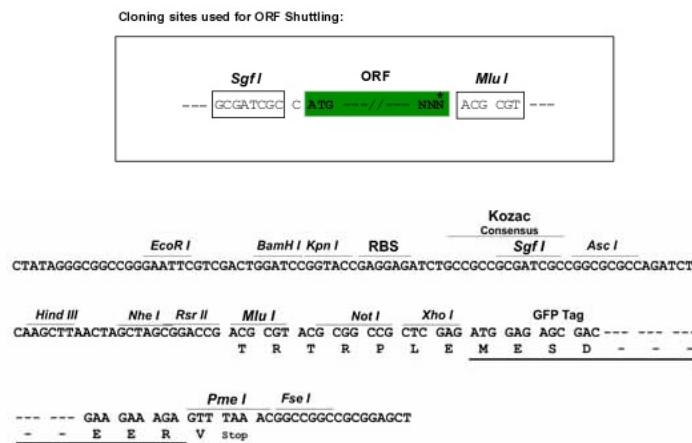
[View online >](#)

Protein Sequence: >Peptide sequence encoded by RG214172
 Blue=ORF Red=Cloning site Green=Tag(s)

MRVFLLCAYILLMLMVSQLRVSPFEDDEPLNTVDYHYSRQYPVFRGRPSGNEHQHRLDFQLMLKIRDTL
 YIAGRDQVYTVNLNEMPKTEVIPNKKLTWRSRQQDRENCAMKGGKHKDECHNFIKVFVPRNDEMVFVCGT
 NAFNPMCRYRLSTLEYDGEEISGLARCPFDARQTNVALFADGKLYSATVADFLASDAVIYRSMGDGSA
 LRTIKYDSKWIKEPHFLHAIIEYGNVYVFFREIAVEHNNLGKAVYSRVARICKNDMGGSQRVLEKHWT
 FLKARLNCSVPGDSFFYFDVLQSIDIIQINGIPTVVGVTQLNSIPGSAVCAFSMDDIEKVFKGRFK
 EQKTPDSVWTVAVPEDKVPKPRPGCCAKHGLAEAYKTSIDFPDELSFIKSHPLMDSAVPPIADEPWFTK
 TRVRYRLTAISVDHSAGPYQNYTVIFVGSEAGMVLKVLAKTSPFSLNDSVLLLEEIEAYNHAK
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPGYNPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_024966

ORF Size: 1428 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](#)

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 Size: 2290 bp

RefSeq ORF: 1431 bp

Locus ID: 80031

UniProt ID: [Q8NFY4](#)

Cytogenetics: 15q21.1

Domains: Sema

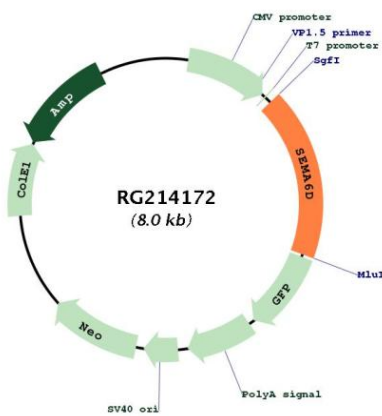
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Axon guidance

MW: 54.2 kDa

Gene Summary:

Semaphorins are a large family, including both secreted and membrane associated proteins, many of which have been implicated as inhibitors or chemorepellents in axon pathfinding, fasciculation and branching, and target selection. All semaphorins possess a semaphorin (Sema) domain and a PSI domain (found in plexins, semaphorins and integrins) in the N-terminal extracellular portion. Additional sequence motifs C-terminal to the semaphorin domain allow classification into distinct subfamilies. Results demonstrate that transmembrane semaphorins, like the secreted ones, can act as repulsive axon guidance cues. This gene encodes a class 6 vertebrate transmembrane semaphorin that demonstrates alternative splicing. Several transcript variants have been identified and expression of the distinct encoded isoforms is thought to be regulated in a tissue- and development-dependent manner. [provided by RefSeq, Nov 2010]

Product images:


Circular map for RG214172