

Product datasheet for **RG216341**

SEMA6D (NM_153617) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA6D (NM_153617) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SEMA6D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG216341 representing NM_153617
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGGTCTTCTGCTTTGTGCTACATACTGCTGCTGATGGTTTCCAGTTGAGGGCAGTCAGCTTTC
 CTGAAGATGATGAACCCCTTAATACTGTGCGACTATCACTATTCAGGCAATATCCGGTTTTAGAGGACG
 CCCTTCAGGCAATGAATCGCAGCACAGGCTGGACTTTCAGCTGATGTTGAAAATTCGAGACACACTTTAT
 ATTGCTGGCAGGGATCAAGTTTATACAGTAAACTTAAATGAAATGCCAAAAACAGAAGTAATACCCAACA
 AGAAACTGACATGGCGATCAAGACAACAGGATCGAGAAAATGTGCTATGAAAGGCAAGCATAAAGATGA
 ATGCCACAACCTTATCAAAGTATTTGTTCCAAGAAACGATGAGATGGTTTTTGTGTGGTACCAATGCA
 TTCAATCCCATGTGTAGATACTACAGTTGAGTACCTTAGAATATGATGGGAAGAAATAGTGGCCTGG
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 AGTGGCTGACTTCTTGGCCAGCGATGCCGTTATTTATCGAAGCATGGGTGATGGATCTGCCCTTCGCACA
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 CATATGTA AAAACGACATGGGTGGTTCCAGCGGGTCTTGAGAAAACACTGGACTTCATTCTAAAGGCT
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 GATTCTGTTTGGCAGCAGTCCCGAAGACAAAGTGCCAAAGCCAAGGCTGGCTGTTGTCAAAAACAGC
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 CAGTTGGATAAAGATCACCACGCTTTATATGTGGCGTTCTCTAGCTGCATTATCCGCATCCCCCTCAGTC
 GCTGTGAGCGTTATGGATCATGTA AAAAGTCTTGTATTGCATCTCGTACCCGATTGTGGCTGGTTAAG
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 CCAGTGGAAAGTTTGGCAAACCTGAATGGTCTCTTTGACAGCCCTGTCAAGGAATACCAACAGAATATTGA
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 TTCACCAGAAGACCCTGCAGGCCATGAAGAGCCACTCAGAAAAGGCCATGGCCATGGAGCTTCAAGGAA
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 TTCTTAGGACGGGACTAAAGAGGACGCGCTCTTAAACCTGACGTGCCACCAAAGCCTTCTTTGTTC
 CTCAAACCCATCTGTCAGACCACTGAACAAATACACATAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG216341 representing NM_153617
 Red=Cloning site Green=Tags(s)

MRVFLLCAYILLMLMVSQLRVSPFEDDEPLNTVDYHYSRQYPVFRGRPSGNEHQHRLDFQLMLKIRDTLY
 IAGRDQVYTVNLEMPKTEVIPNKKLTWRSRQQDRENCAMKGGKHKDECHNF IKVFVPRNDEMVFVCGTNA
 FNPMPCRYRLSTLEYDGEEISGLARCPFDARQTNVALFADGKLYSATVADFLASDAVIYRSMGDGSALRT
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 RLNCSVPGDSFFYFDVLQSIDIIQINGIPTVVGVFTTQLNSIPGSAVCAFMSDDIEKVFKGRFKEQKTP
 DSVWTAVPEDKVPKPRPGCCAKHGLAEAYKTSIDFPDETLSEIKSHPLMDSAVPPIADEPWFTKTRVRYR
 LTAISVDHSAGPYQNYTVIFVSGEAGMVLKVLAKTSPFSLNDSVLLLEEIEAYNHAKCSAENEEDKKVISL
 QLDKDHHLAYVAFSSCIIRIPLSRCERYGSCCKSCIASRDPYCGWL SQGSCGRVTPGMLAEGYEQDTEFG
 NTAHLGDICHEILPTSTTPDYKIFGGPTSGVRWEVQSGESNQMVHMMNLITCVFAAFVLGAFIAGVAVYCY
 RDMFVRNKRNIHKDAESAQSCDSSGSFAKLNGLFDSPVKEYQQNIDSPKLYSNLLTSRKELPPNGDTKS
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 AIVLPNATHDYNTSF SNSNAHKAIEKQLQIDHPLTKSSSKRDHRRSVDSRNTLNDLLKHLNDPNSNPKAI
 MGDIQMAHQNLMLDPMGSMSEVPPKVPNREASLYSPPSTLPRNSPTKRVDVPTTPGVPMTSLERQGYHK
 NSSQRHSISAMPKNLNSPNGVLLSRQPSMNRGGYMPPTTGAKVDYIQGTPVSVHLQPSLSRQSSYTSNGT
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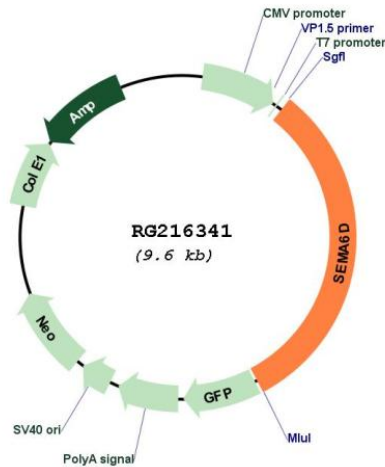
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_153617

ORF Size: 3051 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_153617.2](#)

RefSeq Size: 5941 bp

RefSeq ORF: 3054 bp

Locus ID: 80031

UniProt ID: [Q8NFY4](#)

Cytogenetics:	15q21.1
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Axon guidance
Gene Summary:	<p>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]</p>