

Product datasheet for **RG216774**

SEMA6D (NM_153619) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SEMA6D (NM_153619) 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:

>RG216774 representing NM_153619
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGGGTCTTCTGCTTTGTGCCTACATACTGCTGCTGATGGTTTCCAGTTGAGGGCAGTCAGCTTTC
 CTGAAGATGATGAACCCCTTAATACTGTGACTATCACTATTCAGGCAATATCCGGTTTTAGAGGACG
 CCCTTCAGGCAATGAATCGCAGCACAGGCTGGACTTTCAGCTGATGTTGAAAATTCGAGACACACTTTAT
 ATTGCTGGCAGGGATCAAGTTTATACAGTAAACTTAAATGAAATGCCAAAAACAGAAGTAATACCCAACA
 AGAAACTGACATGGCGATCAAGACAACAGGATCGAGAAAAGTGTCTATGAAAGGCAAGCATAAAGATGA
 ATGCCACAACCTTATCAAAGTATTTGTTCCAAGAAACGATGAGATGGTTTTTTGTTGTGGTACCAATGCA
 TTCAATCCCATGTGTAGATACTACAGTTGAGTACCTTAGAATATGATGGGAAGAAATAGTGGCCTGG
 CAAGATGCCATTTGATGCCAGACAAACCAATGTTGCCCTTTTGTCTGATGGGAAGCTGTATTCTGCCAC
 AGTGGCTGACTTCTTGGCCAGCGATGCCGTTATTTATCGAAGCATGGGTGATGGATCTGCCCTTCGCACA
 ATAAAATATGATTCCAAATGGATAAAAGAGCCACACTTTCTTCATGCCATAGAATATGGAACTATGTCT
 ATTTCTTCTTTCGAGAAATCGTGTGCGAACATAATAATTTAGGCAAGGCTGTGTATTTCCCGCTGGCCCG
 CATATGTA AAAACGACATGGGTGGTTCCAGCGGGTCTGGAGAAACACTGGACTTCATTCTAAAGGCT
 CGGCTGAACTGTTCTGTCCCTGGAGATTCGTTTTTCTACTTTGATGTTCTGCAGTCTATTACAGACATAA
 TACAAATCAATGGCATCCCCACTGTGGTCGGGGTGTACCACGCAGCTCAATAGCATCCCTGGTTCTGC
 TGTCTGTGCATTTAGCATGGATGACATTGAAAAAGTATCAAAGGACGGTTAAGGAACAGAAAACCTCA
 GATTCTGTTTGGCAGCAGTCCCGAAGACAAAGTCCAAAGCCAAGGCTGGCTGTTGTGCAAAAACACG
 GCCTTGGCGAAGCTTATAAAACCTCCATCGATTTCCCGGATGAAACTCTGTCATTATCAAACTCATCC
 CCTGATGGACTCTGCCGTTCCACCCATTGCCGATGAGCCCTGGTTCACAAAGACTCGGGTCAGGTACAGA
 CTGACGGCCTCTCAGTGGACCATTAGCCGGACCCTACCAGAACTACACAGTCTCTTTGTTGGCTCTG
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 AGAGATTGAAGCCTACAACCATGCAAAGTGCAGTCTGAGAATGAGGAAGACAAAAGGTCATCTCATT
 CAGTTGGATAAAGATCACCACGCTTTATATGTGGCGTTCTAGCTGCATTATCCGCATCCCCCTCAGTC
 GCTGTGAGCGTTATGGATCATGTA AAAAGTCTTGTATTGCATCTCGTACCCGATTGTGGCTGGTTAAG
 CCAGGGATCCTGTGGTAGAGTGACCCAGGGATGCTTGTGAAGGATATGAACAAGACACAGAATTCGGC
 AACACAGCTCATTAGGGGACTGCCATGACATGGAGGTATCTTCATCTTCTGTTACCACAATGGTGTACG
 ATGGGAAGTCCAGTCTGGAGAGTCCAACCATGATGGTCCACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG216774 representing NM_153619
 Red=Cloning site Green=Tags(s)

MRVFLLCAYILLMLMVSQLRVAVSFPEDDEPLNTVDYHYSRQYPVFRGRPSGNEHQHRLDFQLMLKIRDLY
 IAGRDQVYTVNLNEMPKTEVIPNKLLTWRSRQDRENCAMKGKHKDECHNF IKVFVPRNDEMVFVCGTNA
 FNPMPCRYRLSTLEYDGEEISGLARCPFDARQTNVALFADGKLYSATVADFLASDAVIYRSMGDGSALRT
 IKYDSKWIKEPHFLHAIIEYGNVYVFFREIAVEHNNL GKAVYSRVARICKNDMGGSSQRVLEKHWTSFLKA
 RLNCSVPGDSFFYFDVLQSIDIIQINGIPTVVGVFTTQLNSIPGSAVCAF SMDDIEKVFKGRFKEQKTP
 DSVWTVAPEDKVPKPRPGCCAKHGLAEAYKTSIDFPDELSFIKSHPLMDSAVPPIADEPWF TKTRVYR
 LTAISVDHSAGPYQNYTVIFVGSEAGMVLKVLAKTSPFSLNDSVLLLEEIEAYNHAKCSAENEEDKKVISL
 QLDKDHHALYVAFSSCIIRIPLSRCERYGSCCKSCIASRDPYCGWLSQGSAGRVTGMLAEGYEQDTEFG
 NTAHLGDCHDMEVSSSVTTMVYDGKSSLESPTRWST

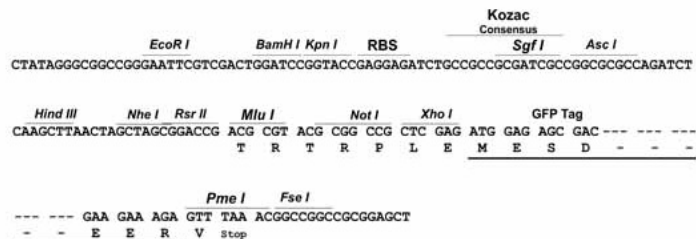
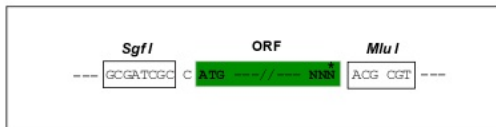
TRTRPLE – GFP Tag – V

Restriction Sites:

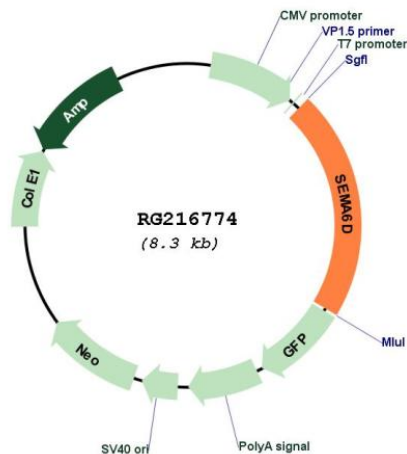
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:

NM_153619

ORF Size:	1791 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:	<ol style="list-style-type: none">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_153619.1 , NP_705872.1
RefSeq Size:	5919 bp
RefSeq ORF:	1794 bp
Locus ID:	80031
UniProt ID:	Q8NFY4
Cytogenetics:	15q21.1
Domains:	Sema
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Axon guidance
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]