

Product datasheet for **RC216032**

Semaphorin 3D (SEMA3D) (NM_152754) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Semaphorin 3D (SEMA3D) (NM_152754) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Semaphorin 3D
Synonyms:	coll-2; Sema-Z2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC216032 representing NM_152754
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAATGCTAATAAAGATGAAAGACTTAAAGCCAGAAGCCAAGATTTTCACCTTTTTCTGCTTTGATGA
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 GTCTGGTTGACTTAAACAAAAATTTAAGAAGATTTATTGGCCTGCTGCAAAGGAACGGGTGGAATTATG
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 ACTCACATATATGTGTGGAAGTGGAGCATTTCATCCAATATGTGGGTATATTGATCTTGGAGTCTACA
 AGGAGGATATTATTTCAAAGTACACACATAATTTGGAGTCTGGCAGACTGAAATGCCTTTTCGATCC
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 GAAGCTGACTTTGAATGTCTTGAAGTGAACAGATGGAAAATACCCAGAGGGCAGAGCATGAGGAGGGG
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 CTCCCTAGAGCTGTAGCCACG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216032 representing NM_152754
 Red=Cloning site Green=Tags(s)

MNANKDERLKARSQDFHLFPALMMLSMTMLFLPVTGTLKQNIPLKLYKDLLLSNSCIPFLGSSEGLDF
 QTLLEERGRLLL GAKDHIFLLSLVDLNKNFKKIYWPAAKERVELCKLAGKDANTECANFIRVLQPYNK
 THIVYCGTGAFHPICGYIDLGVYKEDIIFKLDTHNLESGRLKCPFDPPQPFASVMTDEYLYSGTASDFLG
 KDTAFTRSLGPTHDDHYIRTDISEHYWLNKAKFIGTFFIPDTYNPDDDKIYFFFRESSQEGSTSDKTILS
 RVGRVCKNDVGGQRSLINKWTTFLKARLICSIPGSDGADTYFDELQDIYLLPTRDERNPVYGVFTTTSS
 IFKGSAVCVYSMADIRAVFNGPYAHKESADHRWVQYDGRIPYPRPGTCPSKTYDPLIKSTRDFPDDVISF
 IKRHSVMYKSVYPVAGGPTFKRINVDYRLTQIVVDHVIAEDGQYDVMFLGTDIGTVLKVVVISKEKWNME
 EVVLEELQIFKHSSIIILNMELESLKQQQLYIGSRDGLVQLSLHRCDTYGKACADCCCLARDPYCAWDGNACS
 RYAPTSKRARRRQDVKYGDPITQCWDIEDSISHETADEKVIFGIEFNSTFLECIPKSQQATIKWYIQRSG
 DEHREELKPDERIIKTEYGLLIRSLQKKDSGMYCKAQEHTFIHTIVKLTLNVIENEQMENTQRAEHEEG
 KVKDLLAESRLRYKDYIQLSSPNFSLDQYCEQMWHREKRRQRNKGPKWKHMQEMKKRNRHRDLDE
 LPRAVAT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3492_g07.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_152754

ORF Size: 2331 bp

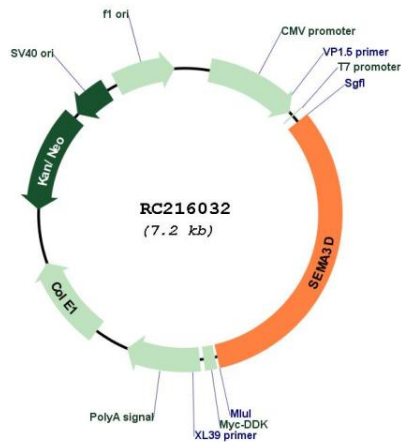
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

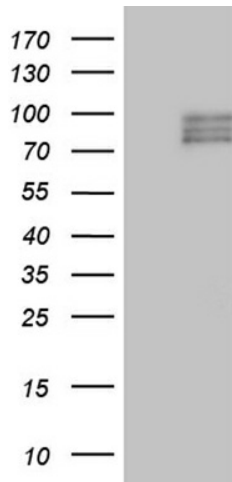
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_152754.2, NP_689967.2</u>
RefSeq Size:	6276 bp
RefSeq ORF:	2334 bp
Locus ID:	223117
UniProt ID:	<u>O95025</u>
Cytogenetics:	7q21.11
Domains:	IG, PSI
Protein Families:	Transmembrane
Protein Pathways:	Axon guidance
MW:	89.5 kDa
Gene Summary:	This gene encodes a member of the semaphorin III family of secreted signaling proteins that are involved in axon guidance during neuronal development. The encoded protein contains an N-terminal Sema domain, an immunoglobulin like domain and a C-terminal basic domain. The protein encoded by this gene binds neuropilin and plays an important role in cardiovascular development. [provided by RefSeq, Aug 2016]

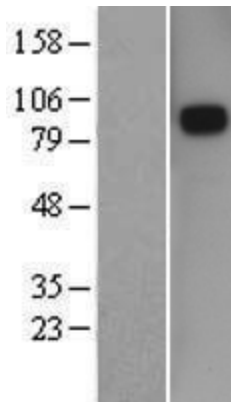
Product images:



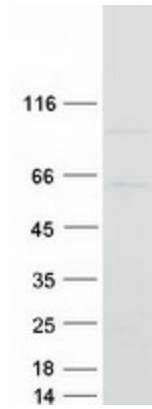
Circular map for RC216032



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SEMA3D (Cat# RC216032, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SEMA3D (Cat# [TA809917])(1:500). Positive lysates [LY407304] (100ug) and [LC407304] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY407304]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216032 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SEMA3D protein (Cat# [TP316032]). The protein was produced from HEK293T cells transfected with SEMA3D cDNA clone (Cat# RC216032) using MegaTran 2.0 (Cat# [TT210002]).