

Product datasheet for **TP308521**

Semaphorin 4D (SEMA4D) (NM_006378) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D), transcript variant 1, 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC208521 protein sequence Red =Cloning site Green =Tags(s)

MRMCTPIRGLLMALAVMFGTAMAFAPIPRITWEHREVHLVQFHEPDIYNYSALLLSEDKDTLYIGAREAV
FAVNALNISEKQHEVYWKVSEDKKAKCAEKGKSKQTECLNYIRVLQPLSATSLYVCGTNAFQPACDHLNL
TSFKFLGKNEGKGRCPFDPASYSVMVDGELYSGTSYNFLGSEPIISRNSSHPLRTEYAI PWLNEPS
FVFADVIRKSPDSPDGEDDRVYFFTEVSVEYEFVFRVLIPRIARVCKGDQGGLRTLQKKWTSFLKARLI
CSRPDGLVFNLRDVFVLRSPGLKVPVYALFTPQLNNVGLSAVCAYNLSTAEVFSHGKYMQSTTVEQ
SHTKWVRYNGPVPKPRPGACIDSEARAANYTSSLNLPDKTLQFVKDHPLMDDSVTPIDNRPLIKKDVNY
TQIVDRTQALDGTVYDVMFVSTDRGALHKAISLEHAVHIIETQLFQDFEPVQTLSSKKGNRFVYAG
SNSGVVQAPLAFCGKHGTCEDCVLARDPYCAWSPPTATCVALHQTESPSRGLIQEMSGDASVCPDKSKGS
YRQHFFKHGGTAELKCSQKSNLARVFWKFQNDVLKAESPKYGLMGRKNLLIFNLSEGDSGVYQCLSEERV
KNKTVFQVVAKHVLEVKVVPKPVVAPTLSVVQTEGSRIATKVLVASTQGSSPPTPAVQATSSGAILP
PAPTGTSCPEKIVINTVQLHSEKTMYLKSSDNRLMSLFLFFVFLCLFFYNKYKGYLPRQCLKFRSA
LLIGKKPKSDFCDREQLKETLVEPGSFSQNGEHPKALDGTGYETEQDTITSKVPTDREDSQRIDDL
ARDKPFVVKCELKFADSDADGD

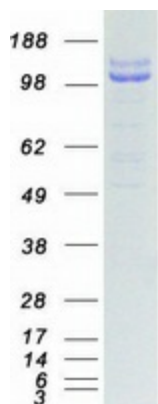
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	96 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_006369
Locus ID:	10507
UniProt ID:	Q92854
RefSeq Size:	4642
Cytogenetics:	9q22.2
RefSeq ORF:	2586
Synonyms:	A8; BB18; C9orf164; CD100; coll-4; COLL4; GR3; M-sema-G; SEMAJ
Summary:	Cell surface receptor for PLXNB1 and PLXNB2 that plays an important role in cell-cell signaling (PubMed:20877282). Regulates GABAergic synapse development (By similarity). Promotes the development of inhibitory synapses in a PLXNB1-dependent manner (By similarity). Modulates the complexity and arborization of developing neurites in hippocampal neurons by activating PLXNB1 and interaction with PLXNB1 mediates activation of RHOA (PubMed:19788569). Promotes the migration of cerebellar granule cells (PubMed:16055703). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed:8876214). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (PubMed:16055703). [UniProtKB/Swiss-Prot Function]
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Axon guidance

Product images:

Coomassie blue staining of purified SEMA4D protein (Cat# TP308521). The protein was produced from HEK293T cells transfected with SEMA4D cDNA clone (Cat# [RC208521]) using MegaTran 2.0 (Cat# [TT210002]).