

## Product datasheet for **TP721107M**

### Semaphorin 4D (SEMA4D) (NM\_006378) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D (SEMA4D), transcript variant 1
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	Met22-Arg734
Tag:	C-His
Predicted MW:	80.2 kDa
Concentration:	lot specific
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Provided lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl
Endotoxin:	Endotoxin level is < 0.1 ng/µg of protein (< 1 EU/µg)
Reconstitution Method:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in ddH <sub>2</sub> O. It is not recommended to reconstitute a concentration less than 100 µg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	<a href="#">NP_006369</a>
Locus ID:	10507
UniProt ID:	<a href="#">Q92854</a>
RefSeq Size:	4642
Cytogenetics:	9q22.2
RefSeq ORF:	2586
Synonyms:	A8; BB18; C9orf164; CD100; coll-4; COLL4; GR3; M-sema-G; SEMAJ



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**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