

## 32-8485: Recombinant Mouse Semaphorin 4D/SEMA4D (C-Fc)

**Gene :** Sema4d  
**Gene ID :** 20354  
**Uniprot ID :** O09126

### Description

Source: Human Cells.

MW :103.4kD.

Recombinant Mouse Semaphorin 4D is produced by our Mammalian expression system and the target gene encoding Phe24-Met711 is expressed with a Fc tag at the C-terminus. SEMA4D is a member of the semaphorin family, contains one Ig-like C2-type domain, one PSI domain and one Sema domain. SEMA4D is strongly expressed in lymphoid tissues, especially in the thymus, as well as in the nervous tissues. However, SEMA4D is expressed at lower levels in testes, brain, kidney, small intestine, prostate, heart, placenta, lung and pancreas, but not in colon and liver. SEMA4D is a cell surface receptor for PLXN1B and PLXNB2 that plays an important role in cell-cell signaling. SEMA4D is involved in a number of fundamental biological processes such as promoting reorganization of the actin cytoskeleton, the migration of cerebellar granule cells and of endothelial cells and signaling via SRC and PTK2B/PYK2, which then mediates activation of phosphatidylinositol 3-kinase and of the AKT1 signaling cascade. Not only these, it plays a role in axonal growth cone guidance in the developing central nervous system. Semaphorin-4D / SEMA4D may play a functional role in the immune system, as well as in the nervous system. It could induce B-cells to aggregate and improves their viability (in vitro). SEMA4D is involved in regulating dendrite and axon branching and morphogenesis and promoting interaction with PLXNB1 mediates activation of RHOA.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Lyophilized from a 0.2 µm filtered solution of 20mM PB,150mM NaCl,pH7.4.  
**Storage condition :** Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.  
**Amino Acid :** FAPVPRLTWEHGEVGLVQFHKGPIFNYSALLMSEDKDTLYVGAREAVFAVNALNISEKQHEVYWKVSEDKKSK  
CAEKGKSKQTECLNIRVLQPLSSTSLYVCGTNAFQPTCDHLNLTsfkFLGKSEDGKGRCFPDPAHSYTSVMVG  
GELYSGTSYNFLGSEPIISRNSSHPLRTEYAIPWLNPSFVFADVIQKSPDGPEGEDDKVYFFTEVSVEYEFVK  
LMIPRVARVCKGDQGLRLTLQKKWTSFLKARLICKPSGLVFNLQDVFLRAPGLKEPVFYAVFTPLNNVGL  
SAVCAYLATVEAVFSRGKMQSATVEQSHTKWVRYNGPVPTPRPGACIDSEARAANYTSSLNLPDKTLQFVK  
DHPLMDDSVTPIDNRPKLIKDVNYTQIVVDRTQALDGTfyDVMFISTDRGALHKAVILTKEVHVIEETQLFRDS  
EPVLTLLSSKKGRKFVYAGSNSGVVQAPLAFCEKHGSCEDCVLARDPYCAWSPAIAKCVTLHQEEASSRGWI  
QDMSGDTSSCLDKSKESFNQHFFKHGGTAELKCFQKSNLARVVWKFQNGELKAASPKYGFVGRKHLLIFNLSD  
GDSGVYQCLSEERVNRKTVSLLAKHVLEVKMVPRTPPSPTSEDAQTEGSKITSKMPVASTQGSSPPTPALWA  
TSPRAATLPPKSSSGTSCEPKMVDIEGRMDEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEV  
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP  
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFLL  
YSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK

### Application Note

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.