

# Recombinant human semaphorin-4D protein

Catalog Number: ATGP4145

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

22-734aa

### UniProt No.

Q92854

### NCBI Accession No.

NP\_006369

### Alternative Names

SEMA4D, SEMA-4D, semaphorin-4D isoform 1, semaphorin4D, C9orf164, CD100, coll-4, COLL4, M-sema-G, SEMAJ, previously Sem J, G or C-like 2, A8, BB18, GR3

## PRODUCT SPECIFICATION

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### Molecular Weight

106.1kDa (952aa)

### Concentration

1mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

hIgG-His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Semaphorin4D, also known as CD100, is a member of the Class 4 family of transmembrane immune and nervous system semaphorins. It is an important mediator of the movement and differentiation of multiple cell types, including those of the immune, vascular, and nervous systems. It serves important roles in T cell priming,

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antibody production, and cell-to-cell adhesion. Sema4D, produced by T cells, activated B cells and dendritic cells acts through a low affinity receptor termed CD72 in the immune system. Unligated CD72 inhibits antigen presenting cells that express it, and this inhibition is relieved by Sema4D binding. It is reflected in its ability to inhibit ovarian carcinoma cell survival. Recombinant human semaphorin-4D, fused to hIgG-His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

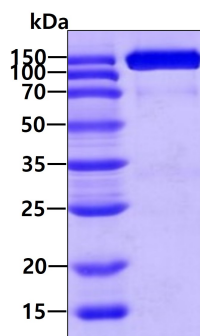
MAFAPIPRIT WEHREVLVQ FHEPDIYNYS ALLLSEDKDT LYIGAREAVF AVNALNISEK QHEVYWKVSE DKKAKCAEKG  
 KSKQTECLNY IRVLQPLSAT SLYVCGTNAF QPACDHLNLT SFKFLGKNEG GKGRCFPDPA HSYTSVMVDG ELYSGTSYNF  
 LGSEPIISRN SSHSPLRTEY AIPWLNESF VFADVIRKSP DSPDGEDDRV YFFFTEVSVE YEFVFRVLIP RIARVCKGDQ  
 GGLRTLQKKW TSFLKARLIC SRPDSGLVFN VLRDVFVLRV PGLKVPVFYA LFTPQLNNVG LSAVCAYNLS TAEVFSHGK  
 YMQSTTVEQS HTKWVRYNGP VPKPRPGACI DSEARAANYT SSLNLPDKTL QFVKDHPLMD DSVTPIDNRP RLIKKDVNYT  
 QIVVDRTQAL DGTVYDVMFV STDRGALHKA ISLEHAVHII EETQLFQDFE PVQTLSSK KGNRFVYAGS NSGVVQAPLA  
 FCGKHGTCD CVLARDPYCA WSPPTATCVA LHQTESPSRG LIQEMSGDAS VCPDKSKGSY RQHFFKHGGT AELKCSQKSN  
 LARVFWKFQN GVLKAESPKY GLMGRKNLLI FNLSEGDGV YQCLSEERVK NKTVFQVVAK HVLEVKVVPK PVVAPTLVSV  
 QTEGSRIATK VLVASTQGS PPTPAVQATS SGAILPVPK APTGTSCEPK IVINTVPQLH SEKTMYLKSS DNR<VEPKSCD  
 KTHTCPPCPA PELLGGPSVF LFPPKPKDTL MISRTPEVTC VVVDVSHEDP EVKFNWYVDG VEVHNAKTKP REEQYNSTYR  
 VVSVLTVLHQ DWLNGKEYKC KVSNAKALPAP IEKTISKAKG QPREPQVYTL PPSRDELTKN QVSLTCLVKG FYPDSIAVEW  
 ESNQGPENNY KTTTPVLDSG GSFLLYSKLT VDKSRWQQGN VFSCSVMEHA LHNHYTQKSL SLSPGKHHHH HH>

## General References

- Kumanogoh, A. and H. Kikutani (2004) Cell. Mol. Life Sci. 61:292-300.
- Janssen, B.J.C. et al. (2010) Nature 467:1118-1122.
- Kumanogoh, A. et al. (2005) Int. Immunol. 17:1277-1282.
- Ishida, I. et al. (2003) Int. Immunol. 15:1027-1034.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain