

# Recombinant human Semaphorin 7A protein

Catalog Number: ATGP3720

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

45-648aa

### UniProt No.

O75326

### NCBI Accession No.

NP\_003603

### Alternative Names

Semaphorin-7A isoform 1, SEMA7A, CD108, CDw108, H-SEMA-K1, H-Sema-L, JMH, SEMAK1, SEMAL

## PRODUCT SPECIFICATION

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### Molecular Weight

95.7 kDa (846aa)

### Concentration

0.25mg/ml (determined by absorbance at 280nm)

### Formulation

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

### Purity

> 90% 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

SEMA7A, also known as semaphorin-7A isoform 1, is a membrane-bound semaphorin that associates with cell surfaces via a glycosylphosphatidylinositol (GPI) linkage. It promotes formation of focal adhesion complexes, activation of the protein kinase PTK2/FAK1 and subsequent phosphorylation of MAPK1 and MAPK3. It plays an important role in integrin-mediated signaling and functions both in regulating cell migration and immune

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responses. It promotes production of proinflammatory cytokines by monocytes and macrophages. Recombinant human SEMA7A, fused to hlgG-His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

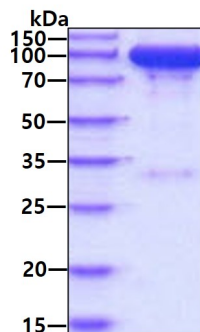
<ADP>QGHLRSG PRIFAVWKGH VGQDRVDFGQ TEPHTVLFHE PGSSSVWVGG RGKVYLFDFP EGKNASVRTV NIGSTKGSCL DKRDCENYIT LLERRSEGLL ACGTNARHPS CWNLVNGTVV PLGEMRGYAP FSPDENSLVL FEGDEVYSTI RKQEYNGKIP RFRRIRGESE LYTSDTVMQN PQFIKATIVH QDQAYDDKIY YFFREDNPKD NPEAPLNVSR VAQLCRGDQG GESSLSVSKW NTFKAMLVC SDAATNKNFN RLQDVFLLPD PSGQWRDTRV YGVFSNPWNY SAVCVYSLGD IDKVFRTSSL KGYHSSLPNP RPKKCLPDQQ PIPTETFQVA DRHPEVAQRV EPMGPLKTPL FHSKYHYQKV AVHRMQASHG ETFHVLYLTT DRGTIHKVVE PGEQEHSFAF NIMEIQPFRR AAIQTMSLD AERRKLYVSS QWEVSQVPLD LCEVYGGGCH GCLMSRDPYC GWDQGRICISI YSSERSVLQS INPAEPHKEC PNPKPKAPL QKVS LAPNSR YYLSCPMESR HATYSWRHKE NVEQSCEPGH QSPNCILFIE NLTAQQYGHY FCEAQEGSYF REAQHWQLLP EDGIMAEHLL GHACALA<LEP KSCDKTHTCP PCPAPELLGG PSVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN STYRVVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE LTKNQVSLTLC LVKGFYPSDI AVEWESNGQP ENNYKTTTPV LQSDGSFFLY SKLTVDKSRW QQGNVFCSSV MHEALHNHYT QKSLSLSPGK HHHHHH>

## General References

Scott GA., et al. (2008) J Invest Dermatol. 128:151-161.  
 Pasterkamp RJ., et al. (2003) Nature. 424:398-405.

## DATA

### SDS-PAGE



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