

## Datasheet for ABIN3135514 Sema4a Protein (AA 33-682) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	Sema4a
Protein Characteristics:	AA 33-682
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Sema4a protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence: TGGQGMPRV KYHAGDGHRA LSFFQQKGLR DFDTLLSDD GNTLYVGARE AVLALNIQNP  
GIPRLKNMIP WPASERKKE CAFKKKSNET QCFNFIRLV SYNATHLYAC GTFAFSPACT  
FIELQDSLIL PILIDKVMG KGQSPFDPVH KHTAVLVDGM LYSGMTMNNFL GSEPILMRTL  
GSQPVLKTDI FLRWLHADAS FVAAIPSTQV VYFFFEETAS EFDFFEELYI SRVAQVCKND  
VGGEKLLQKK WTTFLKAQLL CAQPGQLPFN IIRHAVLLPA DSPSVSRIYA VFTSQWQVGG  
TRSSAVCAFS LTDIERVFKG KYKELNKETS RWTTRYGSEV SPRPGSCSMG PSSDKALTFM  
KDHFLMDEHV VGTPLLKSG VEYTRLAVES ARGLDGSSHV VMYLGTSTGS LHKAVVPQDS  
SAYLVEEIQI SPDSEPVRNL QLAPAQGAFF AGFSGGIWRV PRANCSVYES CVDCVLARDP  
HCAWDPEURL CSLLSGSTKP WKQDMERGNP EWWCTRGPM RSPRRQSPQ LIKEVLTVPN  
SILELPCPHL SALASYHWSH GRAKISEASA TVYNGSLLLL PQDGVGGLYQ CVATENGYSY  
PVVSYWVDSQ DQPLALDPEL AGVPRERVQV PLTRVGGGAS MAAQRSYWPH

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a**

### **special request, please contact us.**

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#### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Sema4a Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

#### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

#### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

#### Sterility:

0.22 µm filtered

#### Endotoxin Level:

Protein is endotoxin free.

#### Grade:

Crystallography grade

## Target Details

Target:	Sema4a
Alternative Name:	Sema4a ( <a href="#">Sema4a Products</a> )
Background:	<p>Cell surface receptor for PLXNB1, PLXNB2, PLXNB3 and PLXND1 that plays an important role in cell-cell signaling. Plays a role in priming antigen-specific T-cells, promotes differentiation of Th1 T-helper cells, and thereby contributes to adaptive immunity. Promotes phosphorylation of TIMD2. Inhibits angiogenesis. Promotes axon growth cone collapse. Inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons.</p> <p>{ECO:0000269 PubMed:12374982, ECO:0000269 PubMed:15780988, ECO:0000269 PubMed:17318185, ECO:0000269 PubMed:20043131}.</p>
Molecular Weight:	72.6 kDa Including tag.
UniProt:	<a href="#">Q62178</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process