

## Recombinant Mouse Semaphorin-4A/SEMA4A Protein (His Tag)

**Catalog No.** PKSM041139

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

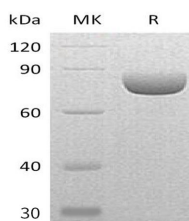
### Description

<b>Synonyms</b>	Semaphorin-4A;Semaphorin-B;Sema B;Sema4a;Semab;SemB
<b>Species</b>	Mouse
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Thr33-His682
<b>Accession</b>	Q62178
<b>Calculated Molecular Weight</b>	72.7 kDa
<b>Observed molecular weight</b>	70-90 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, 1mM EDTA, 5% Trehalose, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Semaphorin-4A (SEMA4A) belongs to the semaphorin family which contains a Ig-like C2-type domain, a PSI domain

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and a Sema domain. SEMA4A is expressed from day 10 in the embryo, and low levels are found between days 10-12. SEMA4A is a cell surface receptor for PLXNB1, PLXNB2, PLXNB3 and PLXND1 that plays an important role in cell-cell signaling. It plays a role in priming antigen-specific T-cells, promotes differentiation of Th1 T-helper cells, and thereby contributes to adaptive immunity. SEMA4A promotes phosphorylation of TIMD2, inhibits angiogenesis, and promotes axon growth cone collapse, Inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons.