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

# Tag)

Catalog Number: PKSM041139



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

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Descri	ntion

Synonyms Semaphorin-4A;Semaphorin-B;Sema B;Sema4a;Semab;SemB

**Species** Mouse

Expression Host HEK293 Cells
Sequence Thr33-His682
Accession Q62178
Calculated Molecular Weight 72.7 kDa
Observed molecular weight 70-90 kDa

### **Properties**

Tag

**Purity** > 95 % as determined by reducing SDS-PAGE.

C-His

Endotoxin < 1.0 EU per  $\mu g$  of the protein as determined by the LAL method.

**Storage** 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.

Shipping This product is provided as lyophilized powder which is shipped with ice packs.

Formulation Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, 1mM

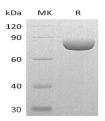
EDTA, 5% Trehalose, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization. Please refer to the specific buffer inform

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



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## **Background**

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

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