



Recombinant Protein Technical Manual

**Recombinant Mouse Semaphorin-4A/SEMA4A
Protein (His Tag)**
RPES2852

Product Data:

Product SKU: RPES2852

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q62178

Protein Information:

Molecular Mass: 72.7 kDa

AP Molecular Mass: 70-90 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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,pH7.4.

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

Application:

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

Immunogen Information:

Sequence: Thr33-His682

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 102. 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.