# Data Sheet (Cat.No.TMPJ-01169)

TargetMol

## SEMA4A Protein, Mouse, Recombinant (His)

### General Information

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|---|---|
| Synonyms: | Semaphorin-4A;Semaphorin-B;Semab;Sema B;Sema4a;SemB |
| Protein Construction: | Thr33-His682 |
| Species: | Mouse |
| Expression Host: | HEK293 Cells |
| Accession: | Q62178 |
| Molecular Weight: | 70-90 KDa (reducing condition) |
| AA Sequence: | Thr33-His682 |

### QC Testing

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|---|---|
| Biological Activity: | Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first. |
| Purity: | Greater than 95% as determined by reducing SDS-PAGE. (QC verified) |
| Endotoxin: | < 0.1 ng/μg (1 EU/μg) as determined by LAL test. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, 150 mM NaCl, 1 mM EDTA, 5% Trehalose, pH 7.4. |

### Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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