

Recombinant Mouse Semaphorin-3A/SEMA3A Protein

Catalog No.: RP02133 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	20346	O08665

Tags

N-hFc

Synonyms

SemD; SEMA1; Semad; coll-1; Hsema-l

Product Information

Source	Purification
HEK293 cells	> 80% by SDS-PAGE.

Calculated MW	Observed MW
87.7 kDa	100 kDa

Endotoxin

< 1.0 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Semaphorins are a family of secreted and cell-bound signaling molecules defined by the presence of a common 5 aa Sema domain. They are best characterized in relation to axon guidance during development of the nervous system. The functions of Semaphorins 3A (SEMA3A) are mediated primarily through binding to the Neuropilin-1 (Npn-1) and Plexin-A1 coreceptor complex. Neuropilins lack a signaling-competent cytoplasmic domain and ensure semaphorin binding, whereas the transmembrane receptor plexin mediates the intracellular response. As the first identified vertebrate semaphorin, SEMA3A functions either as a chemorepulsive agent inhibiting axonal outgrowth, or as a chemoattractive agent stimulating the growth of apical dendrites. In both cases, the protein is vital for normal neuronal pattern development. Its overexpression is associated with schizophrenia which is seen in various human tumor cell lines, and aberrant release is associated with the progression of Alzheimers disease

Basic Information

Description

Recombinant Mouse Semaphorin-3A/SEMA3A Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Lys26-Phe546) of mouse Semaphorin-3A/SEMA3A (Accession #NP_001230001.1) fused with a hFc tag at the N-terminus.

Bio-Activity

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

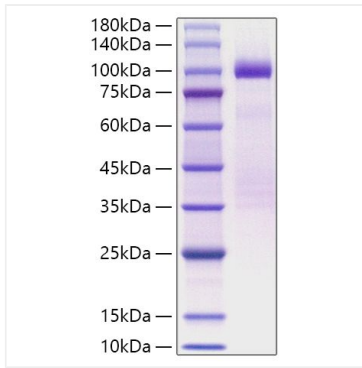
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Validation Data



Recombinant Mouse Semaphorin-3A/SEMA3A Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 100 kD.