Recombinant Mouse Semaphorin-3A/SEMA3A Protein

Catalog No.: RP02133LQ

Sequence Information

Species	Gene ID
Mouse	20346
Swiss Prot	**Tags**
O08665	N-His

Synonyms

Sema III; Semaphorin; Sema D; coll-1; collapsin 1; Hsema-I; Hsema-III; SEMA1, Sema3A; SEMAD; SEMAIII; SEMAL;Semaphorin 3A

Product Information

Source	Purification
HEK293 cells	> 95% as determined by HPLC
Calculated MW	**Observed MW**
86.6 kDa	Due to furin cleavage site, the protein migrates to 65-70 kDa based on Bis-Tris PAGE result.

Endotoxin

< 1 EU/μg of the protein by LAL method

Formulation

Supplied as 0.22 μm filtered solution in PBS, 200 mM L-Argine (pH 7.4).

Reconstitution

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 cytoplasetmic 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 (Tyr21-Val772) of mouse Semaphorin-3A/SEMA3A (Accession #NP_001230001.1) fused with a his tag at the N-terminus.

Activity

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -70℃

Operational Notes

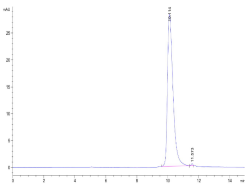
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

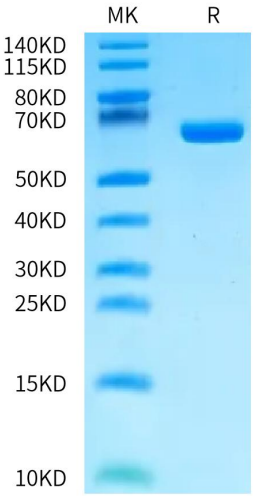
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Validation Data



The purity of Mouse SEMA3A is greater than 95% as determined by SEC-HPLC.



Mouse SEMA3A on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

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