Mouse Semaphorin 5A / SEMA5A Protein (His Tag)

Catalog Number: **50972-M08H**

General Information

Gene Name Synonym:

5930434A13; 9130201M22Rik; AI464145; Semaf; semF

Protein Construction:

A DNA sequence encoding the mouse SEMA5A (Q3UPZ0) (Met1-Thr765) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Pro 22

Molecular Mass:

The recombinant mouse SEMA5A comprises 755 amino acids and has a predicted molecular mass of 85.1 kDa. The apparent molecular mass of the protein is approximately 96 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

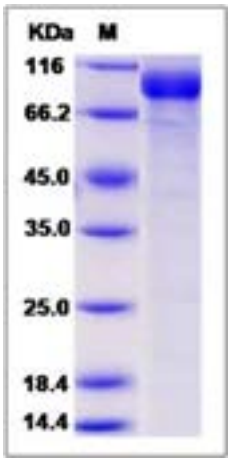
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Semaphorins are secreted, transmembrane, and GPI-linked proteins, defined by cysteine-rich semaphorin protein domains, that have important roles in a variety of tissues. Humans have 20 semaphorins, Drosophila has five, and two are known from DNA viruses. Semaphorins are found in nematodes and crustaceans but not in non-animals. They are grouped into eight classes on the basis of phylogenetic tree analyses and the presence of additional protein motifs. Semaphorins have been implicated in diverse developmental processes such as axon guidance during nervous system development and regulation of cell migration. Semaphorin-5A, also known as Semaphorin-F, Sema F, SEMA5A and SEMAF, is a single-pass type I membrane protein which belongs to thesemaphorin family. Semaphorin5A / SEMA5A contains onePSI domain, oneSema domain and sevenTSP type-1 domains. It may act as positive axonal guidance cues. Semaphorin5A / SEMA5A is an axon regulator molecule and plays major roles during neuronal and vascular development. It plays an essential role in embryonic development. Semaphorin5A / SEMA5A induces endothelial cell migration from pre-existing vessels. It also plays a role in autism, reducing the ability of neurons to form connections with other neurons in certain brain regions.

References

1.Strausberg RL. et al., 2003, Proc Natl Acad Sci. 99 (26): 16899-903. 2.Neufeld G. et al., 2005, Front Biosci. 10: 751-60. 3.Fiore R. et al., 2005, Mol Cell Biol. 25 (6): 2310-9.