Recombinant Human Semaphorin 5A/SEMA5A Protein (aa 1-968, His Tag)

Catalog No. PKSH031161

Note: Centrifuge before opening to ensure complete recovery of vial contents.

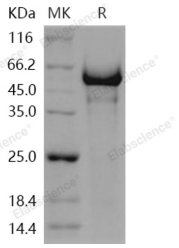
Description

Synonyms	Semaphorin-5A;Semaphorin-F;Sema F;SEMA5A;SEMAF
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Met 968
Accession	NP_003957.2
Calculated Molecular Weight	107 kDa
Observed molecular weight	130-140 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

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

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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.

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