Recombinant Protein Technical Manual

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

RPES2116

Product Data:

Product SKU: RPES2116

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_003957.2

Protein Information:

Molecular Mass: 107 kDa

AP Molecular Mass: 13040 kDa

Tag: C-His

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Semaphorin-5A; Semaphorin-F; Sema F; SEMA5A; SEMAF

Immunogen Information:

Sequence: Met 1-Met 968

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 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 the semaphorin family. Semaphorin5A / SEMA5A contains one PSI domain, one Sema domain and seven TSP type 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.