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**Recombinant Human Semaphorin 5A / SEMA5A Protein (His tag)****Cat.NO.: TP06601**

3th Edition

**Synonyms:**SEMAF;semF

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

**Form:**PBS**Molecular Weight:**107 kDa**Sequences:**Met 1-Met 968**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.