Recombinant Protein Technical Manual

Recombinant Human TFPI2 Protein (His Tag)(Active)

RPES2138

Product Data:

Product SKU: RPES2138

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_006519.1

Protein Information:

Molecular Mass: 23.2 kDa

AP Molecular Mass: 32-34 kDa

Tag: C-His

Bio-activity: Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH2 (Anaspec, Catalog#27114). The IC50 value is < 2 nM, as measured in 100µL reaction mixture containing 1.25 ng trypsin (Sigma, Catalog#T4799), 10 µM substrate, 50 mM Tris, 10 mM CaCl2, 0.15M NaCl , 0.05% Brij-35, pH 7.5.

Purity: > 95 % 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: Tissue Factor Pathway Inhibitor 2; TFPI-2; Placental Protein 5; PP5; TFPI2

Immunogen Information:

Sequence: Met 1-Lys 213

Background:

Tissue factor pathway inhibitor-2 (TFPI2), a member of the Kunitz-type serine proteinase inhibitor family, is a structural homologue of tissue factor pathway inhibitor (TFPI). It is a 32 kDa matrix-associated glycoprotein consisting of a short amino-terminal region, three tandem Kunitz-type domains and a positively charged carboxy-terminal tail. TFPI2 inhibits plasmin-dependent activation of several metalloproteinases. TFPI2 is highly abundant in the full-term placenta and widely expressed in various adult human tissues, such as the liver, skeletal muscle, heart, kidney, and pancreas. The expression of TFPI2 in tumors is inversely related to an increasing degree of malignancy, which may suggest a role for TFPI2 in the maintenance of tumor stability and inhibition of the growth of neoplasms. TFPI2 inhibits the tissue factor/factor VIIa (TF/VIIa) complex and a wide variety of serine proteinases including plasmin, plasma kallikrein, factor XIa, trypsin, and chymotrypsin. TFPI2 is involved in regulating pericellular proteases implicated in a variety of physiologic and pathologic processes including cancer cell invasion, vascular inflammation, and atherosclerosis. TFPI2 has also been shown to induce apoptosis and inhibit angiogenesis, which may contribute significantly to tumor growth inhibition.