Active Recombinant Human TFPI protein, His-GST-tagged

Cat. No. TFPI-106H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human TFPI protein(P10646)(29~304 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	29-304 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Human TFPI, also known as lipoprotein-associated coagulation inhibitor (LACI) and extrinsic pathway inhibitor (EPI), is a physiological inhibitor of extrinsic pathway of coagulation and has biological functions of anticoagulation and anti-inflammation. It is a secreted protein with a N-terminal acidic region, three Kunitz (K) domains separated with by two linker regions, and a C-terminal basic region. The activity of recombinant human TFPI was measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate Mca-RPKPVE-Nval-WRK(Dnp)-NH2 in the assay buffer 50 mM Tris, 10 mM CaCl2, 150 mM NaCl, 0.05% (w/v) Brij-35, pH 7.5. Trypsin was diluted to 50 ug/ml in the assay buffer and 20 ul different concentrations of recombinant human TFPI (MW: 61.9 KD) was incubated with 20 ul diluted trypsin at 37°C for 15 minutes. Loading 50 µ of the incubated mixtures which were diluted five-fold in assay buffer into empty wells of a plate, and start the reaction by adding 50 µ of 20 µM substrate.

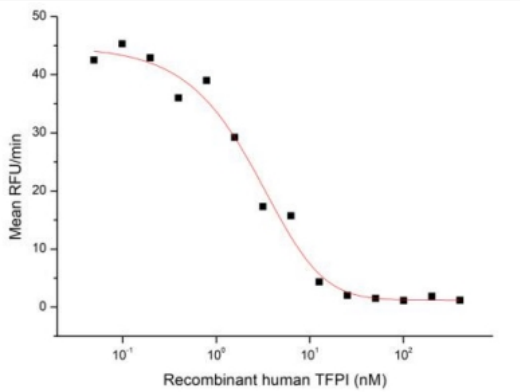
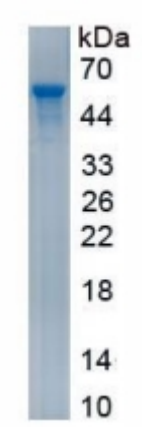
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	Include a substrate blank containing 50 µ of assay buffer and 50 µ of 20 µM substrate. Then read at excitiation and emission wavelengths of 320 nm and 405 nm, respectively, in kinetic mode for 5 minutes. The result was shown and it was obvious that recombinant human TFPI significantly decreased trypsin activity. The inhibition IC50 was <3 nM.
Molecular Mass	61.9kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 80% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	TFPI tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor) [Homo sapiens]
Official Symbol	TFPI
Synonyms	TFPI; tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor); LACI; tissue factor pathway inhibitor; EPI; extrinsic pathway inhibitor; TFI; TFPI1; anti-convertin;
Gene ID	7035

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mRNA Refseq	NM_001032281
Protein Refseq	NP_001027452
MIM	152310
UniProt ID	P10646
Activity	
SDS-PAGE	

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