

Active Recombinant Rat Tfpi protein, His-tagged

Cat. No. Tfpi-575R Lot. No. (See product label)

SPECIFICATION

Product Overview	Active Recombinant Rat Tfpi protein(Q02445)(29~302 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Rat
Source	E.coli
ProteinLength	29-302 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	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 rat TFPI was measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate Mca-RPKPVE-Nval-WRK(Dnp)-NH ₂ in the assay buffer 50 mM Tris, 10 mM CaCl ₂ , 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 rat 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 M substrate. Include a substrate

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blank containing 50 μ of assay buffer and 50 μ of 20 μ M substrate. Then read at excitation 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 rat TFPI significantly decreased trypsin activity. The inhibition IC50 was <10 nM.

Molecular Mass	32.7kDa
Endotoxin	<1.0EU per 1 μ g (determined by the LAL method).
Purity	> 90% 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) [<i>Rattus norvegicus</i>]
Official Symbol	Tfpi
Synonyms	TFPI; tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor); tissue factor pathway inhibitor; EPI; LACI; extrinsic pathway inhibitor; lipoprotein-associated coagulation inhibitor;
Gene ID	29436
mRNA Refseq	NM_001177321

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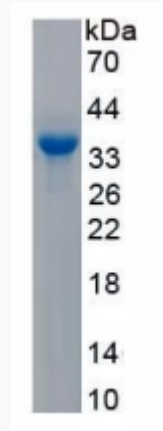
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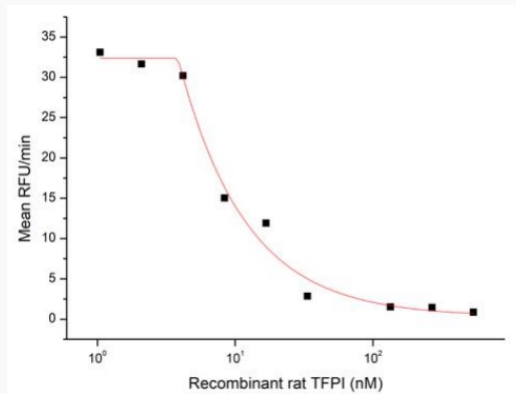
Protein Refseq

NP_001170792

SDS-PAGE



Activity



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