

## Active Recombinant Rat Tfpi protein, His-tagged

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

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Active Recombinant Rat Tfpi protein(Q02445)(29~302 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ProteinLength</b>    | 29-302 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Form</b>             | Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Bio-activity</b>     | <p>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<sub>2</sub> in the assay buffer 50 mM Tris, 10 mM CaCl<sub>2</sub>, 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 μM substrate. Include a substrate</p> |

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blank containing 50  $\mu$  of assay buffer and 50  $\mu$  of 20  $\mu$ 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 IC<sub>50</sub> was <10 nM.

|                       |                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 32.7kDa                                                                                                    |
| <b>Endotoxin</b>      | <1.0EU per 1 $\mu$ g (determined by the LAL method).                                                       |
| <b>Purity</b>         | > 90% as determined by SDS-PAGE.                                                                           |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months. |
| <b>Reconstitution</b> | Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                       |

## GENE INFORMATION

|                        |                                                                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Tfpi tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor) [ <i>Rattus norvegicus</i> ]                                                                                             |
| <b>Official Symbol</b> | Tfpi                                                                                                                                                                                                         |
| <b>Synonyms</b>        | TFPI; tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor); tissue factor pathway inhibitor; EPI; LACI; extrinsic pathway inhibitor; lipoprotein-associated coagulation inhibitor; |
| <b>Gene ID</b>         | 29436                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>     | NM_001177321                                                                                                                                                                                                 |

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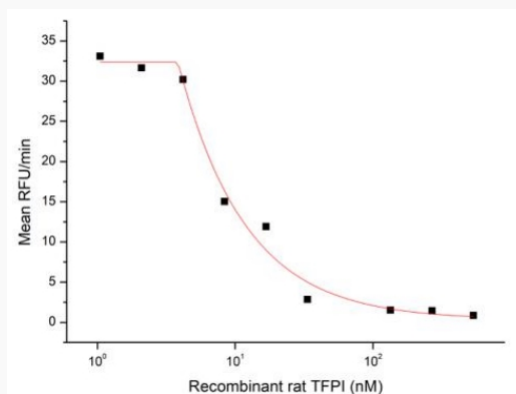
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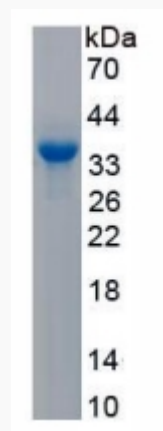
Protein Refseq

NP\_001170792

Activity



SDS-PAGE



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