

Tissue Factor Pathway Inhibitor (TFPI) Active Protein | TFPI active protein

Active Tissue Factor Pathway Inhibitor (TFPI)

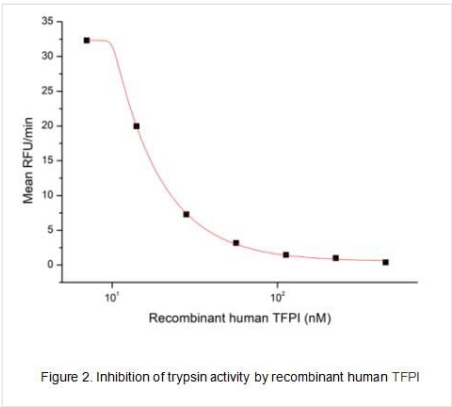
CATALOG # AAA161731	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Tissue Factor Pathway Inhibitor (TFPI); Active Tissue Factor Pathway Inhibitor (TFPI); Tissue Factor Pathway Inhibitor; TFI; EPI; LACI; TFPI1; Lipoprotein-Associated Coagulation Inhibitor; Extrinsic pathway inhibitor4; TFPI active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Asp29~Cys2 51
Applicable Applications for TFPI active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His and GST Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	5.7
Research Area	Metabolic pathway, Hematology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

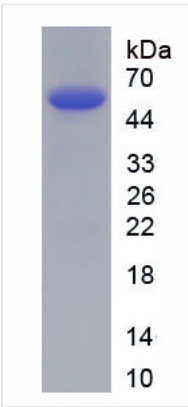


Bioactivity

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: 55.58 KD) was incubated with 20 ul diluted trypsin at 37 degree C for 15 minutes. Loading 50 uL 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 uL of 20 uM substrate. Include a substrate blank containing 50 uL of assay buffer and 50 uL of 20 uM 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 in Figure 1 and it was obvious that recombinant human TFPI significantly decreased trypsin activity. The inhibition IC₅₀ was

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for TFPI active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	73760409
NCBI GeneID	7035
NCBI Accession #	NP_001027452.1
NCBI GenBank Nucleotide #	NM_001032281.2
UniProt Accession #	P10646; O95103; Q53TS4
Molecular Weight	35,015 Da
NCBI Official Full Name	tissue factor pathway inhibitor isoform b
NCBI Official Synonym Full Names	tissue factor pathway inhibitor (lipoprotein-associated coagulation inhibitor)
NCBI Official Symbol	TFPI
NCBI Official Synonym Symbols	EPI; TFI; LACI; TFPI1
NCBI Protein Information	tissue factor pathway inhibitor; anti-convertin; extrinsic pathway inhibitor
UniProt Protein Name	Tissue factor pathway inhibitor
UniProt Gene Name	TFPI
UniProt Synonym Gene Names	LACI; TFPI1; TFPI; EPI; LACI

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/tissue-factor-pathway-inhibitor-tfpi/161731>