

## TFPI2 Protein, Human (HEK293, C-His)

Cat. No.:	HY-P71358A
Synonyms:	Tissue Factor Pathway Inhibitor 2; TFPI-2; Placental Protein 5; PP5; TFPI2
Species:	Human
Source:	HEK293
Accession:	P48307 (D23-K213)
Gene ID:	7980
Molecular Weight:	Approximately 18-32 kDa

### PROPERTIES

AA Sequence	<p>           D A A Q E P T G N N    A E I C L L P L D Y    G P C R A L L L R Y    Y Y D R Y T Q S C R            Q F L Y G G C E G N    A N N F Y T W E A C    D D A C W R I E K V    P K V C R L Q V S V            D D Q C E G S T E K    Y F F N L S S M T C    E K F F S G G C H R    N R I E N R F P D E            A T C M G F C A P K    K I P S F C Y S P K    D E G L C S A N V T    R Y Y F N P R Y R T            C D A F T Y T G C G    G N D N N F V S R E    D C K R A C A K A L    K         </p>
Biological Activity	Measured by its ability to inhibit proliferation of A549 human lung carcinoma cells. The ED <sub>50</sub> this effect is 43.15 ng/mL, corresponding to a specific activity is 2.32×10 <sup>4</sup> units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	The TFPI2 protein may have a crucial role in the regulation of plasmin-mediated matrix remodeling, suggesting its involvement in the intricate processes that govern extracellular matrix dynamics. TFPI2 exhibits inhibitory effects on trypsin, plasmin, factor VIIa/tissue factor, and weakly on factor Xa, indicating its potential influence on various proteolytic activities involved in coagulation and fibrinolysis. Notably, TFPI2 does not affect thrombin. It is found in a complex with ABCB1, TFPI2,
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and PPP2R3C, leading to the dephosphorylation of ABCB1. This complex formation hints at potential regulatory mechanisms involving TFPI2 in modulating the phosphorylation state of ABCB1, which could have broader implications for cellular processes. Further exploration into the specific mechanisms and downstream effects of TFPI2's inhibitory functions and its interactions within the ABCB1-containing complex could provide valuable insights into its multifaceted role in the regulation of hemostasis and matrix remodeling.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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