For Research Use Only

Recombinant Human TFPI protein (His Tag)



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Catalog Number: Eg0855

Basic Information

Species: Human

Purity: >90 %, SDS-PAGE

Tag: His Tag

Technical Specifications

Purity: >90 %, SDS-PAGE

Endotoxin Level:

<0.1 EU/ µ g protein, LAL method

HEK293-derived Human TFPI protein Asp29-Lys282 (Accession#P10646-1) with a His tag at the C-terminus.

GeneID:

7035

Accession: P10646-1

Predicted Molecular Mass: 30.8 kDa

SDS-PAGE:

38-50 kDa, reducing (R) conditions

Lyophilized from 0.22 $\,\mu$ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Until expiry date, -20°C to -80°C as lyophilized proteins.

3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Tissue factor pathway inhibitor (TFPI) is a critical anticoagulant protein present in endothelium and platelets. TFPI is produced as two major isoforms in humans, TFPIa and TFPIb that result from alternative splicing. The TFPIb isoform localizes to the endothelium surface where it is a potent inhibitor of tissue factor-factor VIIa complexes that initiate blood coagulation. The TFPIa isoform is present in platelets. TFPI is a Kunitz-type serine protease inhibitor that exerts anticoagulant activity by blocking early procoagulant stimulia. TFPI can enhance anti-thrombotic treatment in sepsis, inflammatory diseases, and cardiovascular diseases. In plasma, 80% of TFPI is carboxy-terminal truncated and circulates bound primarily to low-density lipoproteins (LDL), with the levels of the latter having an impact on plasma TFPI levels. The other 20% is unbound free-form TFPI characterised by the K3 domain.

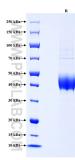
References

- 1. Alan E Mast. et al. (2016) Arterioscler Thromb Vasc Biol. 36(1):9-14.
- 2. Jeremy P Wood. et al. (2014) Blood. 123(19):2934-43. 3. N L Sanders. et al. (1985) Blood. 66(1):204-12. 4. Lwaleed BA. et al. (2006) J Pathol. 208(3): 327-39.

Synonyms

TFPI, EPI, Extrinsic pathway inhibitor, LACI, Lipoprotein-associated coagulation inhibitor

Selected Validation Data



Purity of Recombinant Human TFPI was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.