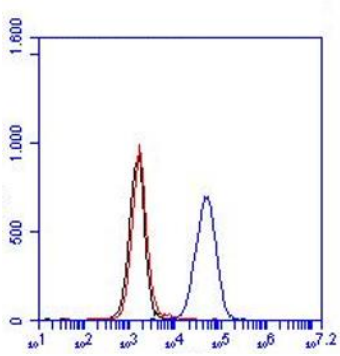
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	TFPI Kunitz-2, Human, clone CLB/TFPI Kunitz-2		
Catalog number	HM2352-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 µg
Formulation	0.2 µm filtered in 20 mM TRIS, 150 mM NaCL, pH 8.0.	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein A
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes				•		•		•
No								
N.D.	•	•	•		•		•	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



FC: Flow cytometry with antibody HM2352. Cells used are HUVEC cells. The black and red line are cells only and the isotype control.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FC: Antibody CLB/TFPI Kunitz-2 stains the extracellular domain of TFPI.
- W: A non-reduced and reduced sample treatment and SDS-Page was used. Huvec lysate was used and bands of 120, 80, 60 and 43kDa were found.
- Positive control: Endothelial and smooth muscle cells.

General Information

Description

Antibody CLB/TFPI KUNITZ-2 recognizes the Kunitz domain 2 (aa 88-160)of TFPI. TFPI (tissue factor pathway inhibitor) is a is a single-chain polypeptide serine protease inhibitor that regulates the tissue factor (TF)-dependent pathway of blood coagulation. The coagulation process initiates with the formation of a factor VIIa-TF complex, which proteolytically activates additional proteases (factors IX and X) and ultimately leads to the formation of a fibrin clot. TFPI is known to interact and inhibit the activated factor X and VIIa-TF proteases in an autoregulatory loop. TFPI is a dual inhibitor, binding to the TF/FVIIa complex to prevent it from acting on its FIX and FX substrates, and by directly inhibiting FXa. Inadequate down-regulation of FXa function by TFPI deficiency leads to thrombosis. Besides coagulation, TFPI may play additional roles in innate immunity, microbial defense, inflammation, angiogenesis, lipid metabolism, and cellular signaling, proliferation, migration and apoptosis. Tissue factor pathway inhibitor (TFPI) Kunitz-2 is a multivalent, Kunitz-type proteinase inhibitor, which, due to alternative mRNA splicing, is transcribed in three isoforms: TFPIalpha, TFPIdelta, and glycosyl phosphatidyl inositol (GPI)-anchored TFPIbeta. The microvascular endothelium is thought to be the principal source of TFPI and TFPIalpha is the predominant isoform expressed in humans. TFPI consists of an acidic aminoterminal polypeptide, followed by 3 tandem Kunitz-type domains (Kunitz

	domains 1, 2, and 3) and a basic carboxyterminal tail. The Kunitz domains are the active protease inhibiting domains of TFPI. The domains are relatively small with a length of about 50 to 60 amino acids and a molecular weight of 6 kDa. TFPI exerts its anticoagulant function by inhibiting tissue factor (TF)–induced coagulation in the blood. The Kunitz-2 domain of TFPI is responsible for factor Xa inhibition.
Aliases	Tissue factor pathway inhibitor, Extrinsic pathway inhibitor
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Brenda Teunissen	28/12/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.