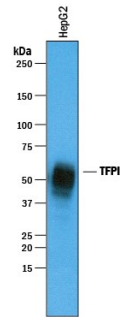
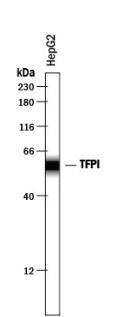



DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human TFPI in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant mouse (rm) TFPI is observed and less than 1% cross-reactivity with recombinant human TFPI-2, and rmTFPI-2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TFPI Asp29-Lys282 Accession # P10646
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
Please Note: Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human TFPI (Catalog # 2974-PI), see our available Western blot detection antibodies
Simple Western	50 µg/mL	See Below

DATA	
<p>Western Blot</p>  <p>Detection of Human TFPI by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human TFPI Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2974) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for TFPI at approximately 40-55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Simple Western</p>  <p>Detection of Human TFPI by Simple Western™. Simple Western lane view shows lysates of HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for TFPI at approximately 58 kDa (as indicated) using 50 µg/mL of Goat Anti-Human TFPI Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2974) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.</p> 

PREPARATION AND STORAGE	
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

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 (1). 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 (2). The first K domain (residues 54 to 104) inhibits coagulation factor VIIa complexed to tissue factor (TF). The second K domain (residues 125 to 175) inhibits factor Xa. The third K domain (residues 217 to 267) binds to heparin (3). The C-terminal basic region may have several functions. For example, it plays an important role in binding of TFPI to cell surfaces (2). The purified rhTFPI ends at residue 282 and does not contain the last 20 residues (residues 283 to 302) in the C-terminal region. It inhibits the activity of Recombinant Human Coagulation Factor VII (Catalog # 2338-SE) in the presence of Recombinant Human Coagulation Factor III/Tissue Factor (Catalog # 2339-PA).

References:

1. Bai, H. *et al.* (2005) *Thromb Haemost.* **93**:1055.
2. Bajaj, M.S. *et al.* (2001) *Thromb Haemost.* **86**:959.
3. Mine, S. *et al.* (2002) *Biochemistry* **41**:78.