

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TFPI in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant human (rh) Coagulation factor II, VII, XI, XIV, rhTFPI-2, recombinant mouse (rm) TFPI, rmTFPI-2, or rhVitronectin is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 374718
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TFPI Asp29-Lys282 Accession # P10646
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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 rhCoagulation Factor VII (R&D Systems, Catalog # 2338-SE) in the presence of rhTissue Factor (R&D Systems, Catalog # 2339-PA). Human TFPI shares 60%, 59% and 58% amino acid sequence identity with rat, mouse and canine TFPI, respectively.

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