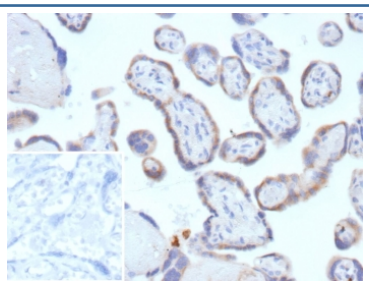
Tissue factor pathway inhibitor 2 Antibody / TFPI2 [clone TFPI2/13027] (V5813)

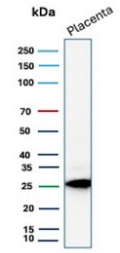
Catalog No.	Formulation	Size
V5813-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5813-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5813SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

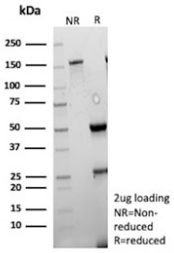
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	TFPI2/13027
Purity	Protein G affinity
UniProt	P48307
Localization	Cell membrane, cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This Tissue factor pathway inhibitor 2 antibody is available for research use only.



Immunohistochemistry analysis of TFPI2 / Tissue factor pathway inhibitor 2 antibody (clone TFPI2/13027) in human placental tissue. Formalin-fixed, paraffin-embedded placenta demonstrates predominantly extracellular and pericellular HRP-DAB brown staining associated with trophoblastic and stromal compartments, consistent with matrix-associated TFPI2 expression. Nuclear counterstain highlights cellular morphology. The inset shows PBS used in place of primary antibody as a negative control, confirming absence of specific staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to staining.



Western blot testing of human placenta tissue lysate with Tissue factor pathway inhibitor 2 antibody (clone TFPI2/13027). Expected molecular weight: ~27 kDa (unmodified), 30-35 kDa (glycosylated).



SDS-PAGE analysis of purified, BSA-free Tissue factor pathway inhibitor 2 antibody (clone TFPI2/13027) as confirmation of integrity and purity.

Description

Tissue factor pathway inhibitor 2 antibody, also known as TFPI2 antibody, recognizes Tissue factor pathway inhibitor 2, a secreted Kunitz-type serine protease inhibitor encoded by the TFPI2 gene. TFPI2 is a member of the Kunitz protease inhibitor family and is commonly referred to as placental protein 5 in earlier literature. The protein is synthesized with a signal peptide and secreted into the extracellular space, where it associates with the extracellular matrix and regulates pericellular proteolysis. Tissue factor pathway inhibitor 2 antibody is used to study extracellular matrix remodeling, tumor invasion, and protease-dependent signaling pathways.

TFPI2 contains three tandem Kunitz-type inhibitory domains that enable it to inhibit a range of serine proteases, including plasmin, trypsin, and certain matrix-associated proteases. Through these inhibitory functions, Tissue factor pathway inhibitor 2 modulates extracellular matrix degradation and influences cell migration, angiogenesis, and tissue remodeling. Although structurally related to Tissue factor pathway inhibitor 1, TFPI2 has distinct biochemical properties and primarily functions in the extracellular matrix rather than directly regulating the tissue factor coagulation pathway. Its activity contributes to maintaining tissue integrity by limiting excessive proteolytic activity in the tumor microenvironment and during inflammatory responses.

TFPI2 expression is observed in a variety of tissues, including placenta, vascular endothelium, and epithelial compartments. In many cancers, TFPI2 expression is reduced due to promoter hypermethylation, and this loss has been associated with enhanced invasive potential and poor prognosis. As a result, Tissue factor pathway inhibitor 2 antibody is frequently used in studies evaluating epigenetic regulation, tumor progression, and stromal-epithelial interactions. Because TFPI2 is secreted and matrix-associated, staining patterns are typically extracellular or pericellular in tissue sections. Clone TFPI2/13027 is designed to detect TFPI2 in research applications and supports investigation of extracellular protease regulation and tumor biology.

Application Notes

Optimal dilution of the Tissue factor pathway inhibitor 2 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 100-235 from human TFPI2 protein was used as the immunogen for the Tissue factor pathway inhibitor 2 antibody.

Storage

Aliquot the Tissue factor pathway inhibitor 2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw

cycles.