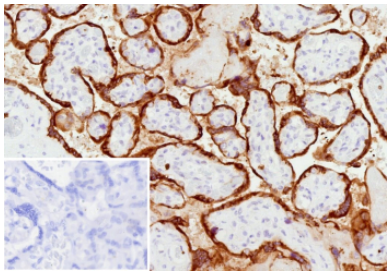
Placental Protein 5 Antibody / TFPI2 [clone TFPI2/13028] (V6023)

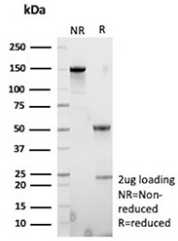
Catalog No.	Formulation	Size
V6023-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6023-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V6023SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	TFPI2/13028
UniProt	P48307
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Placental Protein 5/TFPI2 antibody is available for research use only.



Immunohistochemistry analysis of Placental Protein 5 / TFPI2 antibody (clone TFPI2/13028) in human placental tissue. Formalin-fixed, paraffin-embedded placenta demonstrates prominent extracellular and pericellular HRP-DAB brown staining outlining chorionic villi and trophoblastic structures, 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 heating tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, for 45 minutes at 95oC followed by cooling at room temperature for 20 minutes prior to staining.



SDS-PAGE Analysis of Purified Placental Protein 5/TFPI2 antibody (TFPI2/13028). Confirmation of Purity and Integrity of Antibody.

Description

Placental Protein 5 antibody, also known as TFPI2 antibody, recognizes Placental Protein 5, the historical name for Tissue factor pathway inhibitor 2 encoded by the TFPI2 gene. Originally identified in placental tissue, Placental Protein 5 is a secreted Kunitz-type serine protease inhibitor that associates with the extracellular matrix and regulates pericellular proteolysis. The protein contains three tandem Kunitz domains that enable inhibition of multiple serine proteases involved in matrix degradation and tissue remodeling. Placental Protein 5 antibody is widely used in research examining extracellular matrix regulation, trophoblastic biology, and tumor invasion mechanisms.

TFPI2 is synthesized with a signal peptide and secreted into the extracellular environment, where it binds matrix components and modulates local protease activity. Although structurally related to Tissue factor pathway inhibitor 1, Placental Protein 5 primarily functions in extracellular matrix homeostasis rather than directly regulating the tissue factor coagulation cascade. By inhibiting proteases such as plasmin and trypsin-like enzymes, TFPI2 contributes to maintaining tissue integrity and limiting excessive matrix breakdown. Reduced TFPI2 expression has been reported in various malignancies, often associated with promoter hypermethylation and increased invasive potential.

Expression of Placental Protein 5 has been documented in placenta, vascular endothelium, and selected epithelial tissues. In placental tissue, extracellular and pericellular localization patterns are consistent with its matrix-associated inhibitory role. In cancer biology studies, TFPI2 antibody is frequently used to evaluate epigenetic silencing, stromal interactions, and tumor microenvironment remodeling. Clone TFPI2/13028 is designed to detect Placental Protein 5 in research applications and supports investigation of extracellular protease regulation and matrix-associated signaling pathways.

Application Notes

Optimal dilution of the Placental Protein 5/TFPI2 antibody should be determined by the researcher.

Immunogen

A recombinant fragment (around amino acids 100-235) of human TFPI2 protein (exact sequence is proprietary) was used as the immunogen for the Placental Protein 5/TFPI2 antibody.

Storage

Placental Protein 5/TFPI2 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.