

Anti-TFPI2 Antibody Picoband™

Catalog Number: A03697-1

About TFPI2

Tissue factor pathway inhibitor 2, also known as TFPI2, is a human gene which is located at 7q22. It is an important regulator of the extrinsic pathway of blood coagulation through its ability to inhibit factor Xa and factor VIIa-tissue factor activity. After a 22-residue signal peptide, the mature TFPI2 protein contains 213 amino acids with 18 cysteines and 2 canonical N-linked glycosylation sites. The purified recombinant TFPI2 strongly inhibited the amidolytic activities of trypsin and the factor VIIa-tissue factor complex. The latter inhibition was markedly enhanced in the presence of heparin. Mouse TFPI2 mRNA is highly expressed in developing mouse placenta, as in human. And there are also high transcript levels in adult mouse liver and kidney.

Overview

Product Name	Anti-TFPI2 Antibody Picoband™
Reactive Species	Human, Mouse
Description	Boster Bio Anti-TFPI2 Antibody Picoband™ catalog # A03697-1. Tested in Flow Cytometry, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse.
Application	Flow Cytometry, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P48307

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human TFPI2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat</p> <p>Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human</p> <p>Immunocytochemistry, 0.5-1ug/ml, Human</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p>

Anti-TFPI2 Antibody Picoband™ (A03697-1) Images

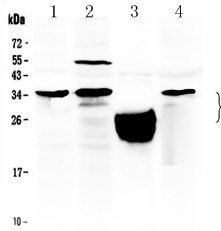


Figure 1. Western blot analysis of TFPI2 using anti-TFPI2 antibody (A03697-1).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: mouse spleen tissue lysates,

Lane 2: HELA whole Cell lysates,

Lane 3: human placenta tissue lysates,

Lane 4: MCF-7 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TFPI2 antigen affinity purified polyclonal antibody (Catalog # A03697-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TFPI2 at approximately 27KD, 35KD. The expected band size for TFPI2 is at 27KD.

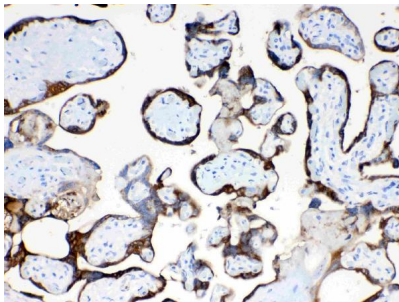


Figure 2. IHC analysis of TFPI2 using anti-TFPI2 antibody (A03697-1).

TFPI2 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TFPI2 Antibody (A03697-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

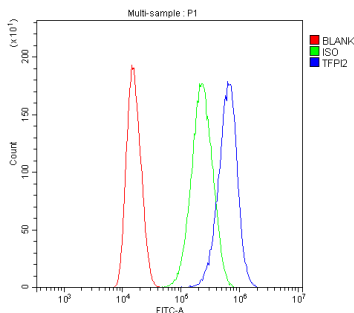
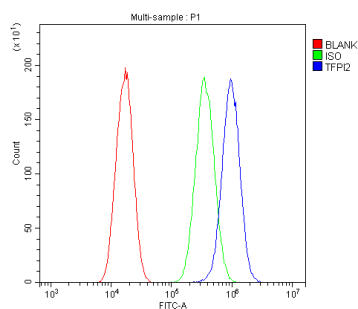


Figure 3. Flow Cytometry analysis of U87 cells using anti-TFPI2 antibody (A03697-1).

Overlay histogram showing U87 cells stained with A03697-1 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TFPI2 Antibody (A03697-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight® 488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Figure 4. Flow Cytometry analysis of A549 cells using anti-TFPI2 antibody (A03697-1).

Overlay histogram showing A549 cells stained with



A03697-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TFPI2 Antibody (A03697-1, 1 μ g/1 $\times 10^6$ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μ g/1 $\times 10^6$ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 μ g/1 $\times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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Anti-TFPI2 Antibody TM