

Anti-PAR1/Thrombin Receptor/F2R Antibody Picoband®

Catalog Number: A03352-1

About F2R

Proteinase-activated receptor 1 (PAR1), also known as the coagulation factor II (thrombin) receptor, is a protein that in humans is encoded by the F2R gene. By fluorescence in situ hybridization, this gene is mapped to 5q13, confirming its presence as a single locus in the human genome. PAR1 is a G protein-coupled receptor involved in the regulation of thrombotic response. Proteolytic cleavage leads to the activation of the receptor. The expression of PAR1 is both required and sufficient to promote growth and invasion of breast carcinoma cells in a xenograft mouse model.

Overview

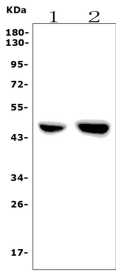
Product Name	Anti-PAR1/Thrombin Receptor/F2R Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PAR1/Thrombin Receptor/F2R Antibody Picoband® catalog # A03352-1. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IHC, 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	P25116

Technical Details

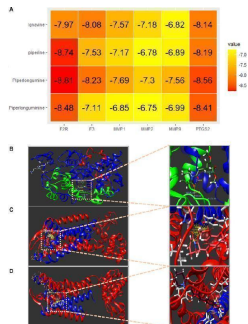
Immunogen	E.coli-derived human PAR1/Thrombin Receptor/F2R recombinant protein (Position: K130-T425).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti- Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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	Western blot, 0.25-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5ug/ml, -

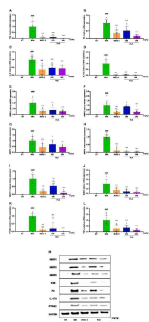
Anti-PAR1/Thrombin Receptor/F2R Antibody Picoband® (A03352-1) Images



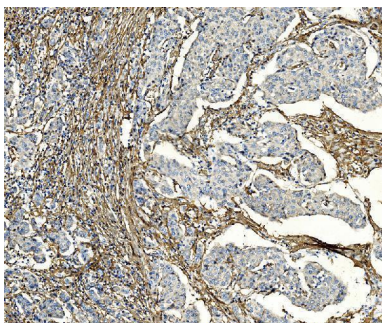
Western blot analysis of F2R using anti-F2R antibody (A03352-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human U-87MG 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-F2R antigen affinity purified polyclonal antibody (Catalog # A03352-1) 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 1:5000 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 F2R at approximately 47kDa. The expected band size for F2R is at 47kDa.



(A) The binding energy between the six most important targets and the core compounds was calculated via molecular docking models. (B) Piperlongumine and PTGS2, binding energy = -8.56 kcal/mol. (C) Piperlongumine and F2R, binding energy = -8.81 kcal/mol. (D) Piperine and F2R, binding energy = -8.74 kcal/mol. Index in PubMed under a CC BY license. PMID: 38328576

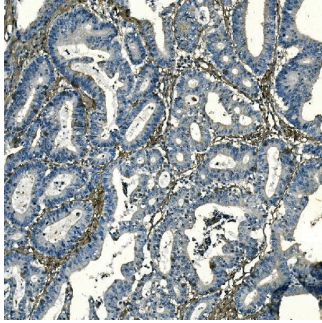


Cytokine levels in the knee cartilage tissue of 100 and 300 mg/kg PLE-treated rats. (A-L) mRNA expression of F2R, F3, IL-1beta, IL-6, IL-17A, MMP-1, MMP-2, MMP-3, MMP-9, MMP-13, NOS2, PTGS2, PGE2, and TNF-alpha determined by qRT-PCR. (M) WB analysis of the protein expression of F2R, F3, IL-17A, MMP-1, MMP-2, MMP-9, and PTGS2. ### p < 0.001 vs. NT, ** p < 0.05 vs. MIA, *** p < 0.001 vs. MIA. NT: non-treated, INDO 3: indomethacin 3 mg/kg. Index in PubMed under a CC BY license. PMID: 38328576

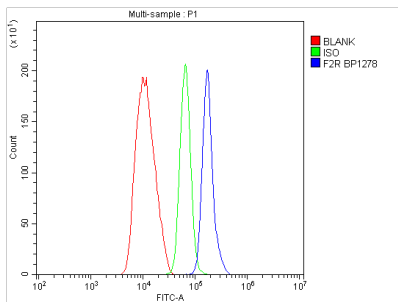


IHC analysis of F2R using anti-F2R antibody (A03352-1). F2R was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-F2R Antibody (A03352-1) 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.



IHC analysis of F2R using anti-F2R antibody (A03352-1). F2R was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-F2R Antibody (A03352-1) 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.



Flow Cytometry analysis of HL-60 cells using anti-F2R antibody (A03352-1). Overlay histogram showing HL-60 cells stained with A03352-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-F2R Antibody (A03352-1, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Submit a product review to [Biocompare.com](https://www.biocompare.com)

Submit a review of this product to [Biocompare.com](https://www.biocompare.com) to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-PAR1/Thrombin Receptor/F2R Antibody

For Research Use Only. Not for use in diagnostic procedures.