

Anti-PTGES2/Gbf1 Antibody Picoband™

Catalog Number: A06706-2

About PTGES2

Microsomal prostaglandin E synthase-2 (mPGES-2) or Prostaglandin E synthase 2 is an enzyme that in humans encoded by the PTGES2 gene located on chromosome 9. The protein encoded by this gene is a membrane-associated prostaglandin E synthase, which catalyzes the conversion of prostaglandin H2 to prostaglandin E2. This protein also has been shown to activate the transcription regulated by a gamma-interferon-activated transcription element (GATE). Multiple transcript variants have been found for this gene.

Overview

Product Name	Anti-PTGES2/Gbf1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PTGES2/Gbf1 Antibody Picoband™ catalog # A06706-2. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q9H7Z7

Technical Details

Immunogen	E.coli-derived human PTGES2/Gbf1 recombinant protein (Position: L100-I370).
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) 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	Dilute the sample so that the expected range of concentrations fall within the detection range of this

kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat

Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human

Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human

Flow Cytometry(Fixed), 1-3 ug/ 1×10^6 cells, Human

Direct ELISA, 0.1-0.5 ug/ml, Human

Anti-PTGES2/Gbf1 Antibody Picoband™ (A06706-2) Images

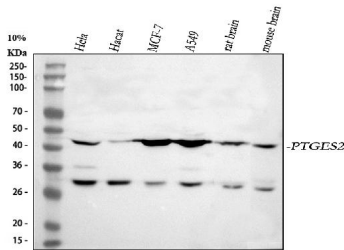


Figure 1. Western blot analysis of PTGES2/Gbf1 using anti-PTGES2/Gbf1 antibody (A06706-2).

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 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human Hecar whole cell lysates,
Lane 3: human MCF-7 whole cell lysates,
Lane 4: human A549 whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-PTGES2/Gbf1 antigen affinity purified polyclonal antibody (Catalog # A06706-2) 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 PTGES2/Gbf1 at approximately 42 kDa. The expected band size for PTGES2/Gbf1 is at 42 kDa.

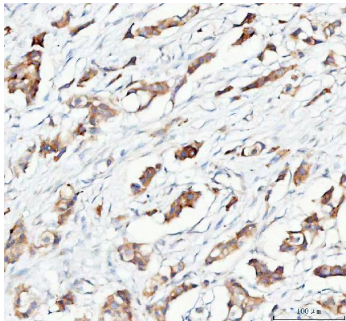


Figure 2. IHC analysis of PTGES2/Gbf1 using anti-PTGES2/Gbf1 antibody (A06706-2).

PTGES2/Gbf1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PTGES2/Gbf1 Antibody (A06706-2) 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.

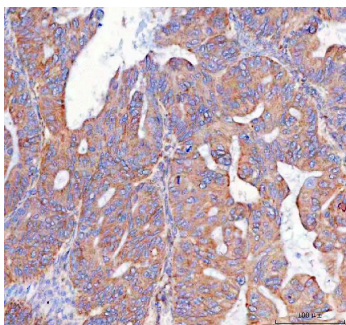


Figure 3. IHC analysis of PTGES2/Gbf1 using anti-PTGES2/Gbf1 antibody (A06706-2).

PTGES2/Gbf1 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PTGES2/Gbf1 Antibody (A06706-2) 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.

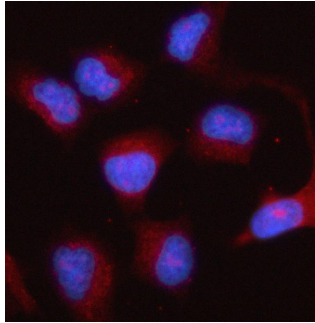


Figure 4. IF analysis of PTGES2/Gbf1 using anti-PTGES2/Gbf1 antibody (A06706-2).

PTGES2/Gbf1 was detected in an immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-PTGES2/Gbf1 Antibody (A06706-2) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

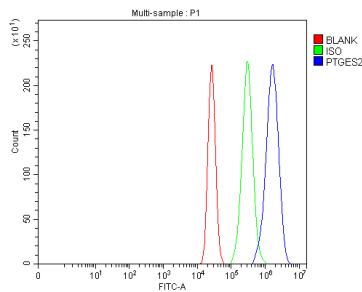


Figure 5. Flow Cytometry analysis of MCF-7 cells using anti-PTGES2/Gbf1 antibody (A06706-2).

Overlay histogram showing MCF-7 cells stained with A06706-2 (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-PTGES2/Gbf1 Antibody (A06706-2, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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