

Anti-GBP1 Antibody Picoband®

Catalog Number: A03067-1

About GBP1

Interferon-induced guanylate-binding protein 1 is a protein that in humans is encoded by the GBP1 gene. It belongs to the dynamin superfamily of large GTPases. Guanylate binding protein expression is induced by interferon. Guanylate binding proteins are characterized by their ability to specifically bind guanine nucleotides (GMP, GDP, and GTP) and are distinguished from the GTP-binding proteins by the presence of 2 binding motifs rather than 3.

Overview

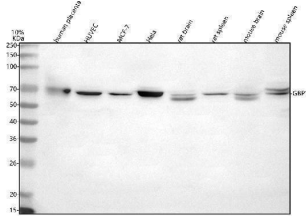
Product Name	Anti-GBP1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GBP1 Antibody Picoband® catalog # A03067-1. Tested in WB,IHC,ICC/IF,IP,FCM,ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, IP, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
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	P32455

Technical Details

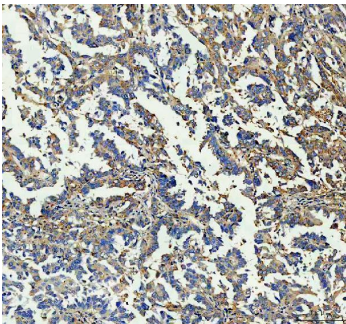
Immunogen	E.coli-derived human GBP1 recombinant protein (Position: E190-S592).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Mouse, Rat

Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human
Immunoprecipitation, 0.5-2 ug/ml, Human
Flow Cytometry (Fixed), 1-3 ug/1x10⁶ cells, Human
ELISA, 0.1-0.5 ug/ml, -

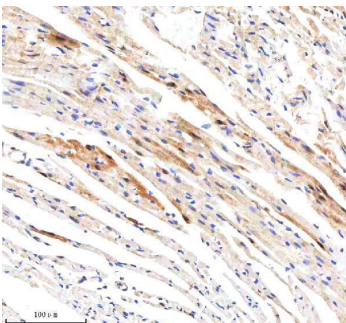
Anti-GBP1 Antibody Picoband® (A03067-1) Images



Western blot analysis of GBP1 using anti-GBP1 antibody (A03067-1). 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 30 ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human HUVEC whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human Hela whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat spleen tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse spleen 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-GBP1 antigen affinity purified polyclonal antibody (Catalog # A03067-1) 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 GBP1 at approximately 68 kDa. The expected band size for GBP1 is at 68 kDa.

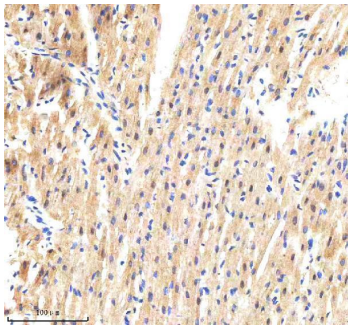


IHC analysis of GBP1 using anti-GBP1 antibody (A03067-1). GBP1 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GBP1 Antibody (A03067-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

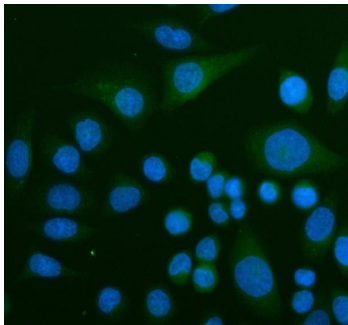


IHC analysis of GBP1 using anti-GBP1 antibody (A03067-1). GBP1 was detected in a paraffin-embedded section of mouse heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GBP1 Antibody (A03067-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

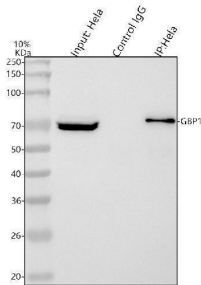
IHC analysis of GBP1 using anti-GBP1 antibody (A03067-1). GBP1 was detected in a paraffin-embedded section of rat



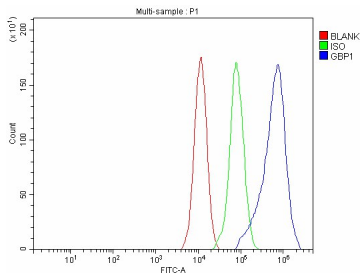
heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GBP1 Antibody (A03067-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of GBP1 using anti-GBP1 antibody (A03067-1). GBP1 was detected in an immunocytochemical section of SiHa 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-GBP1 Antibody (A03067-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.



Immunoprecipitating GBP1 in HeLa whole cell lysate. Western blot analysis of GBP1 using anti-GBP1 antibody (A03067-1). Lane 1: HeLa whole cell lysates (30ug) Lane 2: Rabbit control IgG instead of anti-GBP1 antibody in HeLa whole cell lysate. Lane 3: anti-GBP1 antibody (2ug) + HeLa whole cell lysate (500ug) After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-GBP1 antigen affinity purified polyclonal antibody (A03067-1) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for GBP1 at approximately 68 kDa. The expected band size for GBP1 is at 68 kDa.



Flow Cytometry analysis of MCF-7 cells using anti-GBP1 antibody (A03067-1). Overlay histogram showing MCF-7 cells stained with A03067-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-GBP1 Antibody (A03067-1, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-GBP1 Antibody

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