

Anti-GRB7 Antibody Picoband®

Catalog Number: PA1589-1

About GRB7

GRB7, growth factor receptor-bound protein 7, is a protein which in humans is encoded by the GRB7 gene. The product of this gene belongs to a small family of adaptor proteins that are known to interact with a number of receptor tyrosine kinases and signaling molecules. This gene encodes a growth factor receptor-binding protein that interacts with epidermal growth factor receptor (EGFR) and ephrin receptors. The protein plays a role in the integrin signaling pathway and cell migration by binding with focal adhesion kinase (FAK). Alternative splicing results in multiple transcript variants encoding different isoforms, although the full-length nature of only two of the variants have been determined to date. GRB7 is an SH2-domain adaptor protein that binds to receptor tyrosine kinases and provides the intra-cellular direct link to the Ras proto-oncogene. Human GRB7 is located on the long arm of chromosome 17, next to the ERBB2 (alias HER2/neu) proto-oncogene. These two genes are commonly co-amplified (present in excess copies) in breast cancers. GRB7 thought to be involved in migration, is well known to be over-expressed in testicular germ cell tumors, esophageal cancers, and gastric cancers.

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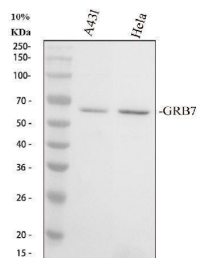
Overview

Product Name	Anti-GRB7 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GRB7 Antibody catalog # PA1589-1. Tested in 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	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	Q14451

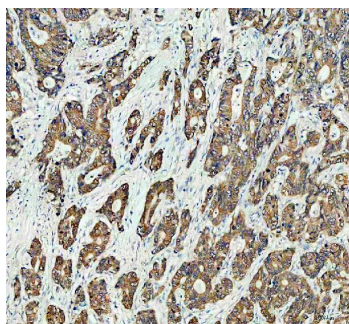
Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human GRB7, identical to the related rat and mouse sequences.
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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10⁶ cells, Human Note: For flow cytometry (FCM), validated for fixed cells only. Not validated for FACS or surface flow cytometry using live cells.

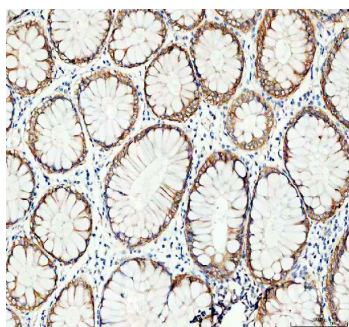
Anti-GRB7 Antibody Picoband® (PA1589-1) Images



Western blot analysis of GRB7 using anti-GRB7 antibody (PA1589-1). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A431 whole cell lysates, Lane 2: human HeLa whole cell 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-GRB7 antigen affinity purified polyclonal antibody (PA1589-1) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for GRB7 at approximately 60 kDa. The expected band size for GRB7 is at 60 kDa.

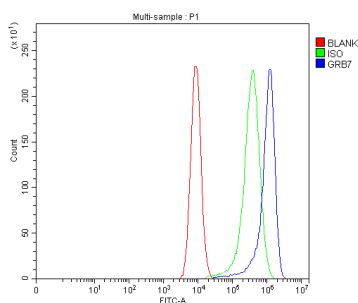


IHC analysis of GRB7 using anti-GRB7 antibody (PA1589-1). GRB7 was detected in a paraffin-embedded section of human stomach cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GRB7 Antibody (PA1589-1) 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 GRB7 using anti-GRB7 antibody (PA1589-1). GRB7 was detected in a paraffin-embedded section of human colon 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-GRB7 Antibody (PA1589-1) 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.

Flow Cytometry analysis of CACO-2 cells using anti-GRB7 antibody (PA1589-1). Overlay histogram showing CACO-2 cells stained with PA1589-1 (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-GRB7 Antibody (PA1589-1, 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.

1 Publications Citing This Product

1. PubMed ID: 26617853, Grb7 gene amplification and protein expression by FISH and IHC in ovarian cancer

Visit bosterbio.com/anti-grb7-antibody-pa1589-1-boster.html to see all 1 publications.

Anti-GRB7 Antibody

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