

Anti-GRB7 Antibody Picoband™

Catalog Number: A02528

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 though to be involved in migration, is well known to be over-expressed in testicular germ cell tumors, esophageal cancers, and gastric cancers.

Overview

Product Name	Anti-GRB7 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-GRB7 Antibody Picoband™ catalog # A02528. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	E.coli-derived human GRB7 recombinant protein (Position: R29-S256).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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, 0.25-0.5ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human Direct ELISA, 0.1-0.5ug/ml, Human

Anti-GRB7 Antibody Picoband™ (A02528) Images

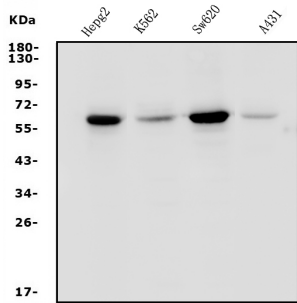


Figure 1. Western blot analysis of GRB7 using anti-GRB7 antibody (A02528).

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 HepG2 whole cell lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: human SW620 whole cell lysates,

Lane 4: human A431 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-GRB7 antigen affinity purified polyclonal antibody (Catalog # A02528) 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 GRB7 at approximately 60KD. The expected band size for GRB7 is at 60KD.

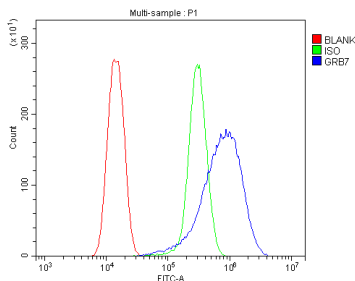


Figure 2. Flow Cytometry analysis of U2OS cells using anti-GRB7 antibody (A02528).

Overlay histogram showing U2OS cells stained with A02528 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GRB7 Antibody (A02528, 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.

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