

Anti-GRK2 Antibody Picoband™

Catalog Number: A32388-1

About GRK2

Beta adrenergic receptor kinase (also referred to as betaARK or BARK) is a serine/threonine intracellular kinase. The product of this gene phosphorylates the beta-2-adrenergic receptor and appears to mediate agonist-specific desensitization observed at high agonist concentrations. This protein is an ubiquitous cytosolic enzyme that specifically phosphorylates the activated form of the beta-adrenergic and related G-protein-coupled receptors. Abnormal coupling of beta-adrenergic receptor to G protein is involved in the pathogenesis of the failing heart.

Overview

Product Name	Anti-GRK2 Antibody Picoband™
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-GRK2 Antibody Picoband™ catalog # A32388-1. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Monkey, Mouse, Rat.
Application	Flow Cytometry, IF, ICC, 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	P25098

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human GRK2, identical to the related mouse and rat sequences.
Predicted Reactive Species	Hepatitis Virus
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, 0.25-0.5ug/ml, Human, Mouse, Rat, Monkey Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human, Mouse, Rat

Anti-GRK2 Antibody Picoband™ (A32388-1) Images

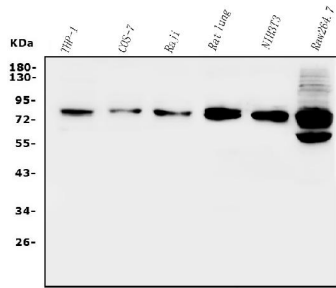


Figure 1. Western blot analysis of GRK2 using anti-GRK2 antibody (A32388-1).

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 THP-1 whole cell lysates,

Lane 2: monkey COS-7 whole cell lysates,

Lane 3: human Raji whole cell lysates,

Lane 4: rat lung tissue lysates,

Lane 5: mouse NTH/3T3 whole cell lysate,

Lane 6: mouse Raw264.7 whole cell lysate.

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-GRK2 antigen affinity purified polyclonal antibody (Catalog # A32388-1) 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 GRK2 at approximately 80KD. The expected band size for GRK2 is at 80KD.

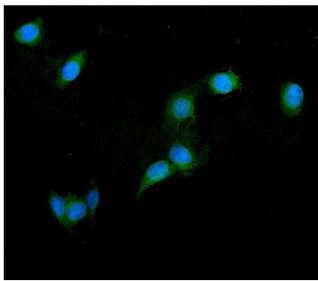


Figure 2. IF analysis of GRK2 using anti-GRK2 antibody (A32388-1).

GRK2 was detected in immunocytochemical section of U2OS 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 5ug/mL rabbit anti-GRK2 Antibody (A32388-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 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.

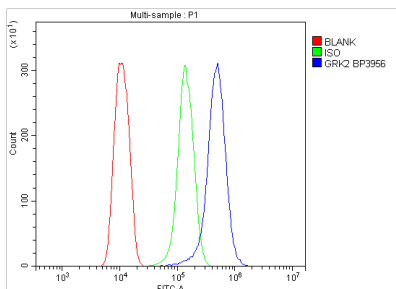


Figure 3. Flow Cytometry analysis of HEPA1-6 cells using anti-GRK2 antibody (A32388-1).

Overlay histogram showing HEPA1-6 cells stained with A32388-1 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GRK2 Antibody (A32388-1, 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 (Red line) was also used as a control.

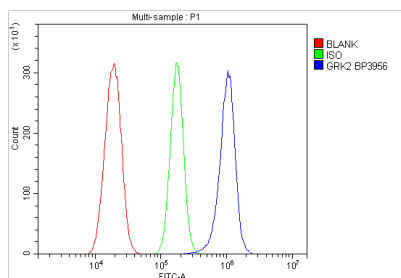


Figure 4. Flow Cytometry analysis of RH35 cells using anti-GRK2 antibody (A32388-1).

Overlay histogram showing RH35 cells stained with A32388-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GRK2 Antibody (A32388-1, 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 (Red line) was also used as a control.

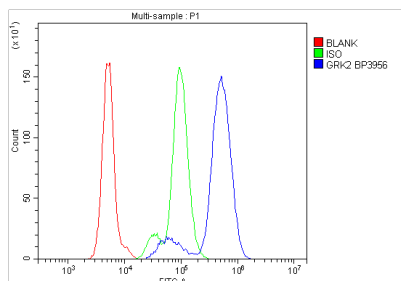


Figure 5. Flow Cytometry analysis of U937 cells using anti-GRK2 antibody (A32388-1).

Overlay histogram showing U937 cells stained with A32388-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GRK2 Antibody (A32388-1, 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 (Red line) was also used as a control.

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