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Anti-GPCR TGR5/GPBAR1 Antibody Picoband™

Catalog Number: A01958-2

About GPBAR1

The G protein-coupled bile acid receptor 1 (GPBAR1) also known G-protein coupled receptor 19 (GPCR19), membrane-type receptor for bile acids (M-BAR) or TGR5 as is a protein that in humans is encoded by the GPBAR1 gene. This gene encodes a member of the G protein-coupled receptor (GPCR) superfamily. This enzyme functions as a cell surface receptor for bile acids. Treatment of cells expressing this GPCR with bile acids induces the production of intracellular cAMP, activation of a MAP kinase signaling pathway, and internalization of the receptor. The receptor is implicated in the suppression of macrophage functions and regulation of energy homeostasis by bile acids. Alternative splicing results in multiple transcript variants encoding the same protein.

Overview

Product Name	Anti-GPCR TGR5/GPBAR1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GPCR TGR5/GPBAR1 Antibody Picoband™ catalog # A01958-2. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, 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	Q8TDU6

Technical Details

Immunogen	E.coli-derived human GPCR TGR5/GPBAR1 recombinant protein (Position: N76-S310).
Predicted Reactive Species	Human
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

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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, Mouse, Rat Flow Cytometry, 1-3 ug/1x10^6 cells, Human Direct ELISA, 0.1-0.5 ug/ml, Human

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Anti-GPCR TGR5/GPBAR1 Antibody Picoband™ (A01958-2) Images

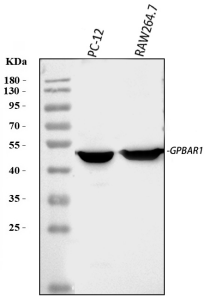

Figure 1. Western blot analysis of GPCR TGR5/GPBAR1 using anti-GPCR TGR5/GPBAR1 antibody (A01958-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat PC-12 whole cell lysates,
Lane 2: mouse RAW264.7 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-GPCR TGR5/GPBAR1 antigen affinity purified polyclonal antibody (Catalog # A01958-2) 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 GPCR TGR5/GPBAR1 at approximately 45 kDa. The expected band size for GPCR TGR5/GPBAR1 is at 35 kDa.

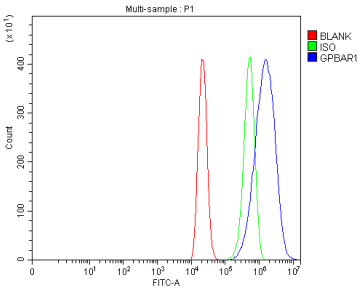

Figure 2. Flow Cytometry analysis of THP-1 cells using anti-GPCR TGR5/GPBAR1 antibody (A01958-2).
Overlay histogram showing THP-1 cells stained with A01958-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GPCR TGR5/GPBAR1 Antibody (A01958-2, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.