

## Anti-GPCR GPR40/FFAR1 Antibody Picoband®

Catalog Number: A01349-2

### About FFAR1

Free fatty acid receptor 1 (FFA1), also known as GPR40, is a class A G-protein coupled receptor that in humans is encoded by the FFAR1 gene. This gene encodes a member of the GP40 family of G protein-coupled receptors that are clustered together on chromosome 19. The encoded protein is a receptor for medium and long chain free fatty acids and may be involved in the metabolic regulation of insulin secretion. Polymorphisms in this gene may be associated with type 2 diabetes.

### Overview

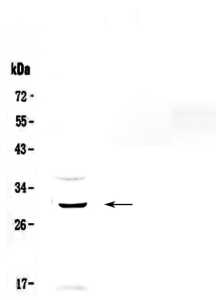
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-GPCR GPR40/FFAR1 Antibody Picoband®                                                                                                                                                                                                                                                                                                                                                                                          |
| Reactive Species     | Human, Mouse, Rat                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Description          | Boster Bio Anti-GPCR GPR40/FFAR1 Antibody Picoband® catalog # A01349-2. Tested in 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          | WB                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Clonality            | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Formulation          | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .                                                                                                                                                                                                                                                                                                                  |
| 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           | O14842                                                                                                                                                                                                                                                                                                                                                                                                                            |

### Technical Details

|                               |                                                                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                     | A synthetic peptide corresponding to a sequence at the C-terminus of human GPCR GPR40, which shares 88% and 84% amino acid (aa) sequence identity with mouse and rat GPCR GPR40, respectively. |
| 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 | Western blot, 0.1-0.5ug/ml                                                |

## Anti-GPCR GPR40/FFAR1 Antibody Picoband® (A01349-2) Images



Western blot analysis of GPCR GPR40 using anti-GPCR GPR40 antibody (A01349-2).

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 50ug of sample under reducing conditions.

Lane 1: human PANC-1 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-GPCR GPR40 antigen affinity purified polyclonal antibody (Catalog # A01349-2) 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 1:10000 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 GPCR GPR40 at approximately 31KD. The expected band size for GPCR GPR40 is at 31KD.

## 2 Publications Citing This Product

1. PubMed ID: 10.1155/2021/9938649, Palmitic Acid Methyl Ester Enhances Adipogenic Differentiation in Rat Adipose Tissue-Derived Mesenchymal Stem Cells through a G Protein-Coupled Receptor-Mediated Pathway
2. PubMed ID: 33136305, Maciel Junior M, de Carvalho SC, Saenz Suarez PA, Santo Neto H, Marques MJ. Fish oil attenuated dystrophic muscle markers of inflammation via free fatty acid receptors 1 (FFA1) and 4 (FFA4) in the mdx mouse model of DMD. Anat Rec (Hoboken). 2020 Nov 2. doi

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