

Anti-LRPPRC/GP130 Antibody Picoband™

Catalog Number: A03264

About LRPPRC

Leucine-rich PPR motif-containing protein, mitochondrial is a protein that in humans is encoded by the LRPPRC gene. It is mapped to 2p21. This gene encodes a leucine-rich protein that has multiple pentatricopeptide repeats (PPR). The precise role of this protein is unknown but studies suggest it may play a role in cytoskeletal organization, vesicular transport, or in transcriptional regulation of both nuclear and mitochondrial genes. The protein localizes primarily to mitochondria and is predicted to have an N-terminal mitochondrial targeting sequence. Mutations in this gene are associated with the French-Canadian type of Leigh syndrome.

Overview

Product Name	Anti-LRPPRC/GP130 Antibody Picoband™
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-LRPPRC/GP130 Antibody Picoband™ catalog # A03264. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Monkey, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P42704

Technical Details

Immunogen	E.coli-derived human LRPPRC/GP130 recombinant protein (Position: A1281-S1394).
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, 0.1-0.25ug/ml, Human, Mouse, Rat, Monkey

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat

Immunocytochemistry/Immunofluorescence, 2ug/ml, Human

Flow Cytometry, 1-3ug/1x10⁶ cells, Human, Rat

Direct ELISA, 0.1-0.5ug/ml, Human

Anti-LRPPRC/GP130 Antibody Picoband™ (A03264) Images

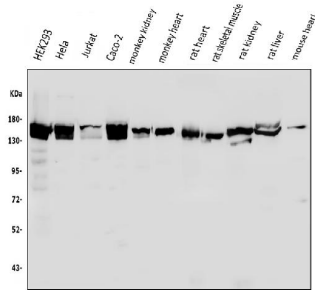


Figure 1. Western blot analysis of LRPPRC using anti-LRPPRC antibody (A03264).

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 HEK293 whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: human Caco-2 whole cell lysates,
Lane 5: monkey kidney tissue lysates,
Lane 6: monkey heart tissue lysates,
Lane 7: rat heart tissue lysates,
Lane 8: rat skeletal muscle tissue lysates,
Lane 9: rat kidney tissue lysates,
Lane 10: rat liver tissue lysates,
Lane 11: mouse heart tissue 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-LRPPRC antigen affinity purified polyclonal antibody (Catalog # A03264) at 0.25 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 LRPPRC at approximately 157KD. The expected band size for LRPPRC is at 150-160KD.

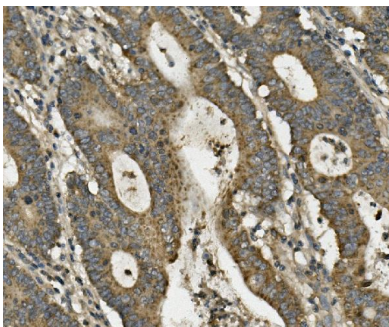
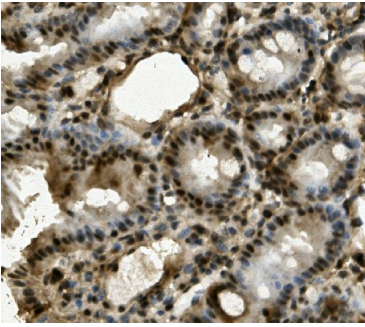


Figure 2. IHC analysis of LRPPRC using anti-LRPPRC antibody (A03264).

LRPPRC was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-LRPPRC Antibody (A03264) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 3. IHC analysis of LRPPRC using anti-LRPPRC antibody (A03264).

LRPPRC was detected in paraffin-embedded section of mouse intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-LRPPRC Antibody (A03264) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and



incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

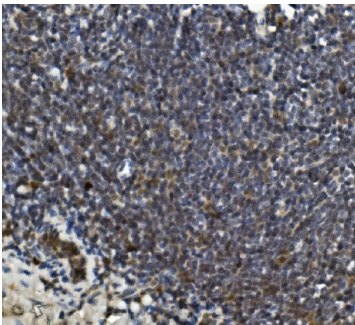


Figure 4. IHC analysis of LRPPRC using anti-LRPPRC antibody (A03264).

LRPPRC was detected in paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-LRPPRC Antibody (A03264) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

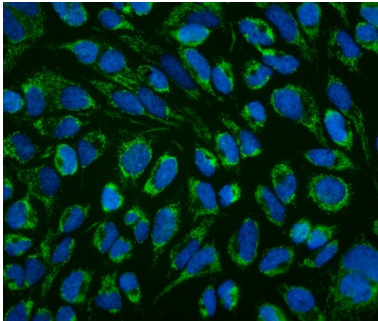


Figure 5. IF analysis of LRPPRC using anti-LRPPRC antibody (A03264).

LRPPRC was detected in immunocytochemical section of HeLa 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 2ug/mL rabbit anti-LRPPRC Antibody (A03264) 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.

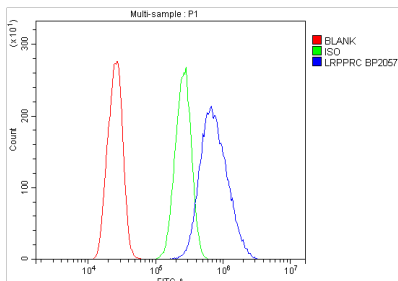
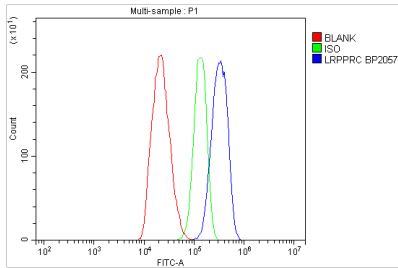


Figure 6. Flow Cytometry analysis of A431 cells using anti-LRPPRC antibody (A03264).

Overlay histogram showing A431 cells stained with A03264 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-LRPPRC Antibody (A03264, 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 7. Flow Cytometry analysis of C6 cells using anti-LRPPRC antibody (A03264).

Overlay histogram showing C6 cells stained with A03264 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-LRPPRC Antibody



(A03264, 1 μ g/1 $\times 10^6$ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μ g/1 $\times 10^6$ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 μ g/1 $\times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

2 Publications Citing This Product

1. PubMed ID: 10.1007/s10571-021-01052-z, Proteomic Profiling of Cerebrum Mitochondria, Myelin Sheath, and Synaptosome Revealed Mitochondrial Damage and Synaptic Impairments in Association with 3 $\times$ Tg β AD Mice Model
2. PubMed ID: 33560469, Shen L,Yang A,Chen X,Xiao S,Liu X,Lin J,Zhao Y,Zhang K,Li C,Ke J,Zhang H,Khan NU.Proteomic Profiling of Cerebrum Mitochondria, Myelin Sheath, and Synaptosome Revealed Mitochondrial Damage and Synaptic Impairments in Association with 3 $\times$ Tg-AD Mice Model.C

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