

Anti-Periplakin/PPL Antibody Picoband™

Catalog Number: A02098-1

About PPL

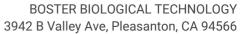
Periplakin is a protein that in humans is encoded by the PPL gene. The protein encoded by this gene is a component of desmosomes and of the epidermal cornified envelope in keratinocytes. The N-terminal domain of this protein interacts with the plasma membrane and its C-terminus interacts with intermediate filaments. Through its rod domain, this protein forms complexes with envoplakin. This protein may serve as a link between the cornified envelope and desmosomes as well as intermediate filaments. AKT1/PKB, a protein kinase mediating a variety of cell growth and survival signaling processes, is reported to interact with this protein, suggesting a possible role for this protein as a localization signal in AKT1-mediated signaling.

Overview

Product Name	Anti-Periplakin/PPL Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Periplakin/PPL Antibody Picoband™ catalog # A02098-1. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg 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	O60437

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Periplakin, different from the related mouse sequence by one amino acid.
Predicted Reactive Species	Human
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





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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, 0.1-0.25 ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry, 1-3 ug/1x10 ⁶ cells, Human



Anti-Periplakin/PPL Antibody Picoband™ (A02098-1) Images

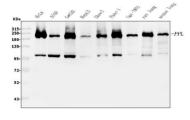


Figure 1. Western blot analysis of Periplakin using anti-Periplakin antibody (A02098-1).

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 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: human SW620 whole cell lysates,

Lane 4: human HepG2 whole cell lysates,

Lane 5: human SK-OV-3 whole cell lysates,

Lane 6: human PANC-1 whole cell lysates,

Lane 7: human SGC-7801 whole cell lysates,

Lane 8: rat lung tissue lysates,

Lane 9: mouse lung tissue 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-Periplakin antigen affinity purified polyclonal antibody (Catalog # A02098-1) 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 Periplakin at approximately 202 kDa. The expected band size for Periplakin is at 205 kDa.

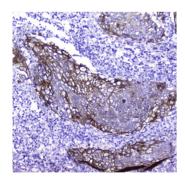


Figure 2. IHC analysis of Periplakin using anti-Periplakin antibody (A02098-1).

Periplakin was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Periplakin Antibody (A02098-1) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

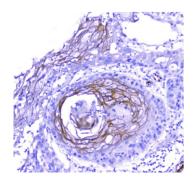


Figure 3. IHC analysis of Periplakin using anti-Periplakin antibody (A02098-1).

Periplakin was detected in a paraffin-embedded section of human oesophagus squama cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Periplakin Antibody (A02098-1) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

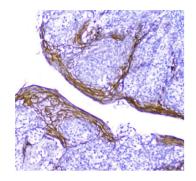


Figure 4. IHC analysis of Periplakin using anti-Periplakin antibody (A02098-1).

Periplakin was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Periplakin Antibody (A02098-1) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1023) with DAB as the chromogen.

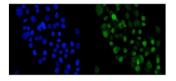


Figure 5. IF analysis of Periplakin using anti-Periplakin antibody (A02098-1).

Periplakin was detected in immunocytochemical section of A431 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-Periplakin Antibody (A02098-1) 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.

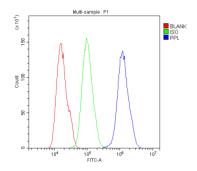


Figure 6. Flow Cytometry analysis of U20S cells using anti-Periplakin antibody (A02098-1).

Overlay histogram showing U20S cells stained with A02098-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Periplakin Antibody (A02098-1,1ug/1x10 6 cells) for 30 min at 20 $^\circ$ C. DyLight® 488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10 6 cells) was used as secondary antibody for 30 minutes at 20 $^\circ$ C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10 6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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