

Anti-RAB7/RAB7A Antibody Picoband™

Catalog Number: PB9883

About RAB7A

Ras-related protein Rab-7a is a protein that in humans is encoded by the RAB7A gene. RAB7A functions as a key regulator in endo-lysosomal trafficking, governs early-to-late endosomal maturation, microtubule minus-end as well as plus-end directed endosomal migration and positions, and endosome-lysosome transport through different protein-protein interaction cascades. Furthermore, RAB7A is involved in regulation of some specialized endosomal membrane trafficking, such as maturation of melanosomes through modulation of SOX10 and the oncogene MYC. Mutations in the lysosomal pathway result in tumor progression in melanoma cells.

Overview

Product Name	Anti-RAB7/RAB7A Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-RAB7/RAB7A Antibody Picoband™ catalog # PB9883. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 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	P51149

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RAB7, identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Predicted Reactive Species	Chicken
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 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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human

Anti-RAB7/RAB7A Antibody Picoband™ (PB9883) Images

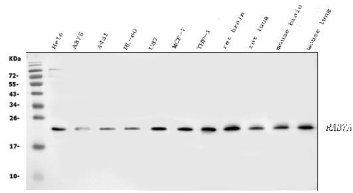


Figure 1. Western blot analysis of RAB7 using anti-RAB7 antibody (PB9883).

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 A375 whole cell lysates,
Lane 3: human A431 whole cell lysates,
Lane 4: human HL-60 whole cell lysates,
Lane 5: human U87 whole cell lysates,
Lane 6: human MCF-7 whole cell lysates.
Lane 7: human THP-1 whole cell lysates,
Lane 8: rat brain tissue lysates,
Lane 9: rat lung tissue lysates,
Lane 10: mouse brain tissue lysates,
Lane 11: 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-RAB7 antigen affinity purified polyclonal antibody (Catalog # PB9883) 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 RAB7 at approximately 23 kDa. The expected band size for RAB7 is at 23 kDa.

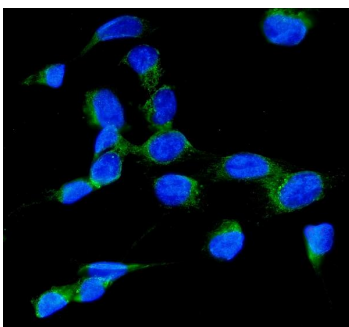
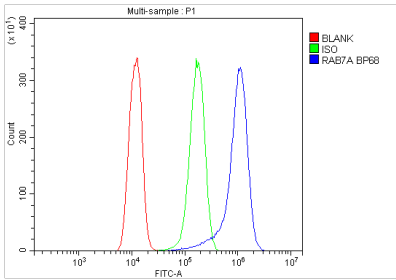


Figure 2. IF analysis of RAB7 using anti-RAB7 antibody (PB9883).

RAB7 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 2ug/mL rabbit anti-RAB7 Antibody (PB9883) 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 A431 cells using anti-RAB7 antibody (PB9883).

Overlay histogram showing A431 cells stained with PB9883 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RAB7 Antibody (PB9883, 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



(1 μ g/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

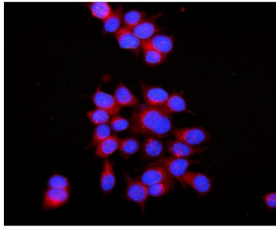


Figure 4. IF analysis of RAB7 using anti-RAB7 antibody (PB9883).

RAB7 was detected in immunocytochemical section of MCF7 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 2 μ g/mL rabbit anti-RAB7 Antibody (PB9883) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) 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.

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Anti-RAB7/RAB7A Antibody TM