

Anti-Rab5/RAB5A Antibody Picoband™

Catalog Number: PB9787

About RAB5A

RAB5A (Ras-associated protein RAB5A), also called RAB5, is a protein that in humans is encoded by the RAB5A gene. RAB5 is a rate-limiting component of the machinery regulating the kinetics of membrane traffic in the early endocytic pathway. The RAB5A gene is mapped on 3p24.3. RAB5 is indispensable for a form of receptor tyrosine kinase-induced actin remodeling called circular ruffling. It signals to the actin cytoskeleton through RNTRE, a RAB5-specific GTPase-activating protein (GAP). RAB5 activity on phagosome membranes began to increase on disassembly of the actin coat encapsulating phagosomes. In addition, RAB5 activation is either continuous or repetitive for up to 10 minutes, but it ends before the collapse of engulfed apoptotic cells. Expression of a dominant-negative mutant of RAB5 delayed this collapse of apoptotic thymocytes, showing a role for RAB5 in phagosome maturation.

Overview

Product Name	Anti-Rab5/RAB5A Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Rab5/RAB5A Antibody Picoband™ catalog # PB9787. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, 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	P20339

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Rab5, different from the related mouse and rat sequences by three amino acids.
Predicted Reactive Species	Bovine
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).
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: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

Anti-Rab5/RAB5A Antibody Picoband™ (PB9787) Images

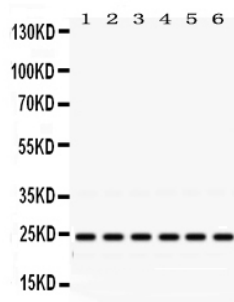


Figure 1. Western blot analysis of Rab5 using anti-Rab5 antibody (PB9787).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.

Lane 1: Rat Brain Tissue Lysate at 50ug,
Lane 2: Mouse Brain Tissue Lysate at 50ug,
Lane 3: HELA Whole Cell Lysate at 40ug,
Lane 4: SW620 Whole Cell Lysate at 40ug,
Lane 5: 293T Whole Cell Lysate at 40ug,
Lane 6: JURKAT Whole Cell Lysate at 40ug.

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-Rab5 antigen affinity purified polyclonal antibody (Catalog # PB9787) 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 Rab5 at approximately 24 kDa. The expected band size for Rab5 is at 24 kDa.

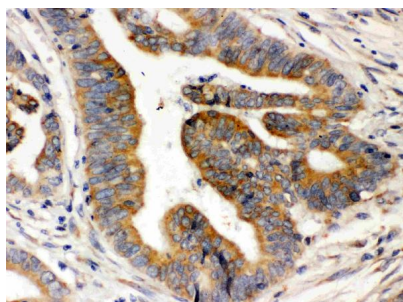


Figure 2. IHC analysis of Rab5 using anti-Rab5 antibody (PB9787).

Rab5 was detected in a paraffin-embedded section of human intestinal 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 1 ug/ml rabbit anti-Rab5 Antibody (PB9787) 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.

1 Publications Citing This Product

1. PubMed ID: 28491025, Han F, Jiang J, Ding J, Liu H, Xiao B, Shi Y. Front Behav Neurosci. 2017 Apr 26;11:62. doi: 10.3389/fnbeh.2017.00062. eCollection 2017. Change of Rin1 and Stathmin in the Animal Model of Traumatic Stresses

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