

Anti-Rac1 Antibody Picoband™

Catalog Number: PB9431

About RAC1

Rac1, also known as Ras-related C3 botulinum toxin substrate 1, is a protein found in human cells. It is encoded by the RAC1 gene. This gene can produce a variety of alternatively spliced versions of the Rac1 protein, which appear to carry out different functions. This gene is a GTPase which belongs to the RAS superfamily of small GTP-binding proteins. Members of this superfamily appear to regulate a diverse array of cellular events, including the control of cell growth, cytoskeletal reorganization, and the activation of protein kinases. Two transcript variants encoding different isoforms have been found for this gene.

Overview

Product Name	Anti-Rac1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Rac1 Antibody Picoband™ catalog # PB9431. Tested in IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	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	P63000

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Rac1, identical to the related mouse and rat sequences.
Predicted Reactive Species	Hamster
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

Anti-Rac1 Antibody Picoband™ (PB9431) Images

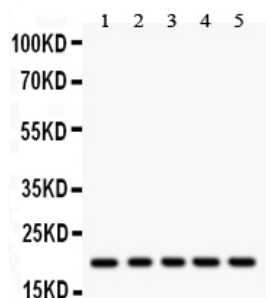


Figure 1. Western blot analysis of RAC1 using anti-RAC1 antibody (PB9431).

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

Lane 1: Rat Pancreas Tissue Lysate at 50ug,

Lane 2: Mouse Intestine Tissue Lysate at 50ug,

Lane 3: HELA Whole Cell Lysate at 40ug,

Lane 4: COLO320 Whole Cell Lysate at 40ug,

Lane 5: SGC 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-RAC1 antigen affinity purified polyclonal antibody (Catalog # PB9431) 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 RAC1 at approximately 21 kDa. The expected band size for RAC1 is at 21 kDa.

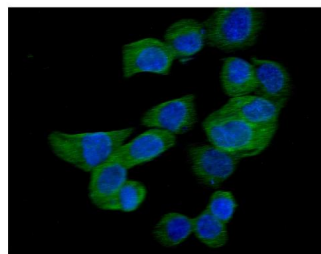


Figure 2. IF analysis of Rac1 using anti-Rac1 antibody (PB9431).

Rac1 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 2ug/mL rabbit anti-Rac1 Antibody (PB9431) 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.

2 Publications Citing This Product

1. PubMed ID: 28934273, Han F1, Zhuang TT1, Chen JJ1, Zhu XL1,2, Cai YF1, Lu YP1. PLoS One. 2017 Sep 21;12(9):e0185102. doi: 10.1371/journal.pone.0185102. eCollection 2017. Novel derivative of Paeonol, Paeononlsilatide sodium, alleviates behavioral damage and hippocampal ...

2. PubMed ID: 25037060, Shen L, Yang A, Yao P, Sun X, Chen C, Mo C, Shi L, Chen Y, Liu Q. Biometals. 2014 Aug;27(4):753-62. Doi: 10.1007/S10534-014-9769-9. Epub 2014 Jul 19. Gadolinium Promoted Proliferation In Mouse Embryo Fibroblast Nih3T3 Cells Through Rac And Pi3K/Ak...

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