

Anti-AMPK alpha 1/PRKAA1 Antibody Picoband®

Catalog Number: A00994-3

About PRKAA1

5'-AMP-activated protein kinase catalytic subunit alpha-1 is an enzyme that in humans is encoded by the PRKAA1 gene. The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways.

Overview

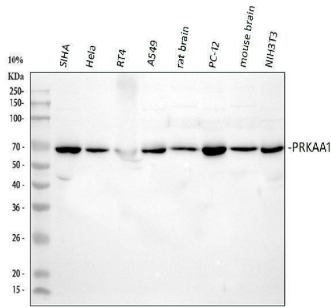
Product Name	Anti-AMPK alpha 1/PRKAA1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-AMPK alpha 1/PRKAA1 Antibody Picoband® catalog # A00994-3. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	Q13131

Technical Details

Immunogen	E. coli-derived human AMPK alpha 1 recombinant protein (Position: F377-R446).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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	Western blot, 0.1-0.5ug/ml ELISA, 0.1-0.5ug/ml

Anti-AMPK alpha 1/PRKAA1 Antibody Picoband® (A00994-3) Images



Western blot analysis of AMPK alpha 1 using anti-AMPK alpha 1 antibody (A00994-3). 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 SiHa whole cell lysates, Lane 2: human HeLa whole cell lysates, Lane 3: human RT4 whole cell lysates, Lane 4: human A549 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat PC-12 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse NIH/3T3 whole cell 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-AMPK alpha 1 antigen affinity purified polyclonal antibody (Catalog # A00994-3) 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 AMPK alpha 1 at approximately 64 kDa. The expected band size for AMPK alpha 1 is at 64 kDa.

2 Publications Citing This Product

1. PubMed ID: 25162824, Hou S, Zheng F, Li Y, Gao L, Zhang J. Int J Mol Sci. 2014 Aug 26;15(9):15026-43. Doi: 10.3390/Ijms150915026. The Protective Effect Of Glycyrrhizic Acid On Renal Tubular Epithelial Cell Injury Induced By High Glucose.
2. PubMed ID: 29033843, The apolipoprotein A?I mimetic peptide, D?4F, restrains neointimal formation through heme oxygenase?1 up?regulation

Visit bosterbio.com/anti-ampk-alpha-1-antibody-a00994-3-boster.html to see all 2 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-AMPK alpha 1/PRKAA1 Antibody

For Research Use Only. Not for use in diagnostic procedures.