

Anti-AMPK Alpha 1/PRKAA1 (Phospho-T183)/AMPK Alpha 2/PRKAA2 (Phospho-T172) Antibody (Monoclonal, 31P05)

Catalog Number: M00994-3

About PRKAA1/PRKAA2

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.

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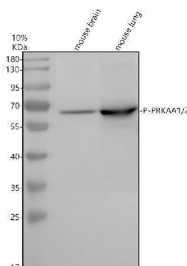
Overview

Product Name	Anti-AMPK Alpha 1/PRKAA1 (Phospho-T183)/AMPK Alpha 2/PRKAA2 (Phospho-T172) Antibody (Monoclonal, 31P05)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-AMPK Alpha 1/PRKAA1 (Phospho-T183)/AMPK Alpha 2/PRKAA2 (Phospho-T172) Antibody (Monoclonal, 31P05) catalog # M00994-3. Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Monoclonal 31P05
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q13131/P54646

Technical Details

Immunogen	Synthetic phosphopeptide corresponding to residues surrounding Thr183 of human AMPK alpha 1.
Form	Liquid
Concentration	500 ug/ml
Purification	Protein A affinity purified.
Suggested Dilutions	Western blot, 1:500-2000 Immunohistochemistry, 1:50-200

Anti-AMPK Alpha 1/PRKAA1 (Phospho-T183)/AMPK Alpha 2/PRKAA2 (Phospho-T172) Antibody (Monoclonal, 31P05) (M00994-3) Images



Western blot analysis of AMPK Alpha 1/PRKAA1 using anti-AMPK Alpha 1/PRKAA1 antibody (M00994-3). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: mouse brain tissue lysates, Lane 2: 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-AMPK Alpha 1/PRKAA1 antigen affinity purified monoclonal antibody (M00994-3) at 1:500 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for AMPK Alpha 1/PRKAA1 at approximately 64 kDa. The expected band size for AMPK Alpha 1/PRKAA1 is at 64 kDa.

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