Product datasheet

Anti-AMPK Alpha 1/PRKAA1 Antibody

Catalog Number: ***A00994-6***

BOSTER
antibody and ELISA experts
BOSTER BIOLOGICAL TECHNOLOGY
Building C21, 3rd and 4th floors, Optics Valley Biomedical Accelerator,
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Basic Information

Product Name	Anti-AMPK Alpha 1/PRKAA1 Antibody
Gene Name	PRKAA1
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, monkey, mouse, rat
Tested Application	WB, FCM, ELISA
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E.coli-derived human AMPK alpha 1/PRKAA1 recombinant protein (Position: D359-P539).
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	64 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Enzyme linked immunosorbent assay (ELISA):1:100-1000 Flow Cytometry (Fixed): 1:50-200

Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

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.

Reference

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Anti-AMPK Alpha 1/PRKAA1 Antibody被引用在8文献中。

Selected Validation Data

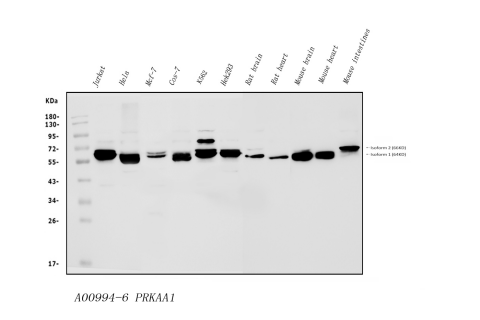

Figure 1. Western blot analysis of anti- PRKAA1 antibody (A00994-6).The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: Human Jurkat whole cell lysates,Lane 2: Human HELA whole cell lysates,Lane 3: Human MCF-7 whole cell lysates,Lane 4: Monkey COS-7 whole cell lysates,Lane 5: Human K562 whole cell lysates,Lane 6: Human HEK293 whole cell lysates,Lane 7: Rat brain tissue lysates,Lane 8: Rat heart tissue lysates,Lane 9: Mouse brain tissue lysates,Lane 10: Mouse heart tissue lysates,Lane 11: Mouse intestines tissue lysates.Use rabbit anti- PRKAA1 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for PRKAA1 at approximately 64KD. The expected band size for PRKAA1 is at 64KD.

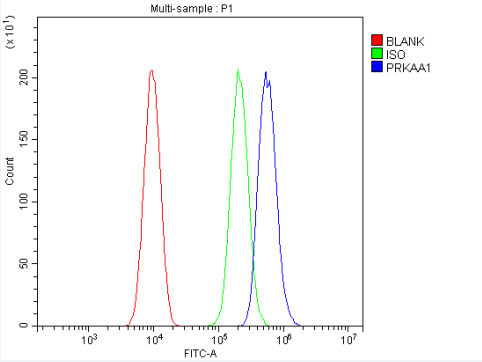

Figure 2. Flow Cytometry analysis of SiHa cells using anti-AMPK Alpha 1/PRKAA1 antibody (A00994-6).
Overlay histogram showing SiHa cells stained with A00994-6 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-AMPK Alpha 1/PRKAA1 Antibody (A00994-6) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.