

Basic Information

Product Name	Anti-AMPK Alpha 1/PRKAA1 Antibody	
Gene Name	PRKAA1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat, monkey	
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): Enzyme linked immunosorbent assay (ELISA): Flow Cytometry (Fixed):	1:500-2000 1:100-1000 1:50-200

Storage

12 months from date of receipt, -20°C as supplied.

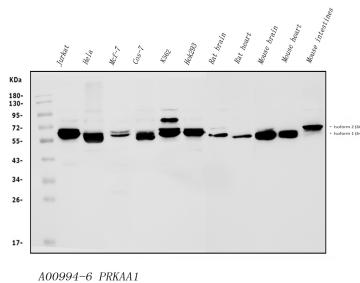
Background Information

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

Anti-AMPK Alpha 1/PRKAA1 Antibody被引用在11文献中。

Selected Validation Data

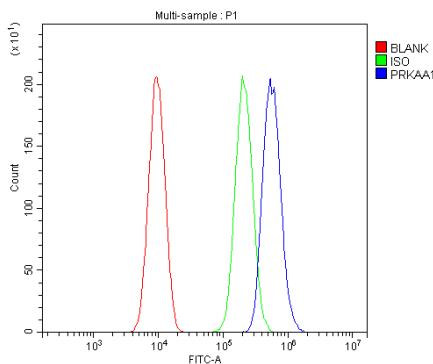


A00994-6 PRKAA1

Western blot analysis of AMPK Alpha 1/PRKAA1 using anti-AMPK Alpha 1/PRKAA1 antibody (A00994-6). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: Human Jurkat whole cell lysates,
Lane 2: Human HELO 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.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-AMPK Alpha 1/PRKAA1 antigen affinity purified polyclonal antibody (A00994-6) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). 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.



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. Fluoro488 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.