

Basic Information

Product Name	Anti-AMPK Alpha 1/PRKAA1 Antibody
Gene Name	PRKAA1
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, ELISA
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.
Immunogen	E. coli-derived human AMPK alpha 1 recombinant protein (Position: F377-R446).
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

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C 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

Anti-AMPK Alpha 1/PRKAA1 Antibody被引用在5文献中。

Selected Validation Data

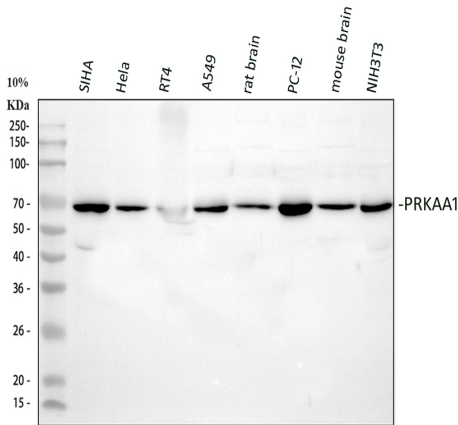


Figure 1. Western blot analysis of AMPK Alpha 1/PRKAA1 using anti-AMPK Alpha 1/PRKAA1 antibody (A00994-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

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 membrane. Then the membrane was incubated with rabbit anti-AMPK Alpha 1/PRKAA1 antigen affinity purified polyclonal antibody (A00994-3) 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.