Best Tools for immunology Research

# AMPK α1 (PT0165R) rabbit mAb

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| **Catalog No :** | YM8099 |
| **Reactivity :** | Human; Mouse; Rat; |
| **Applications :** | WB;IHC;IF;IP;ELISA |
| **Target :** | AMPKα1 |
| **Fields :** | >>FoxO signaling pathway;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Apelin signaling pathway;>>Tight junction;>>Circadian rhythm;>>Thermogenesis;>>Insulin signaling pathway;>>Adipocytokine signaling pathway;>>Oxytocin signaling pathway;>>Glucagon signaling pathway;>>Insulin resistance;>>Non-alcoholic fatty liver disease;>>Alcoholic liver disease;>>Hypertrophic cardiomyopathy;>>Fluid shear stress and atherosclerosis |
| **Gene Name :** | PRKAA1 |
| **Protein Name :** | 5'-AMP-activated protein kinase catalytic subunit alpha-1 (AMPK subunit alpha-1) (EC 2.7.11.1) (Acetyl-CoA carboxylase kinase) (ACACA kinase) (EC 2.7.11.27) (Hydroxymethylglutaryl-CoA reductase kinase |
| **Human Gene Id :** | 5562 |
| **Human Swiss Prot No :** | Q13131 |
| **Mouse Swiss Prot No :** | Q5EG47 |
| **Rat Swiss Prot No :** | P54645 |
| **Specificity :** | endogenous |
| **Formulation :** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA |
| **Source :** | Monoclonal, rabbit, IgG, Kappa |
| **Dilution :** | IHC 1:100-200,WB 1:1000-5000,IF 1:200-1000,ELISA 1:5000-20000,IP |

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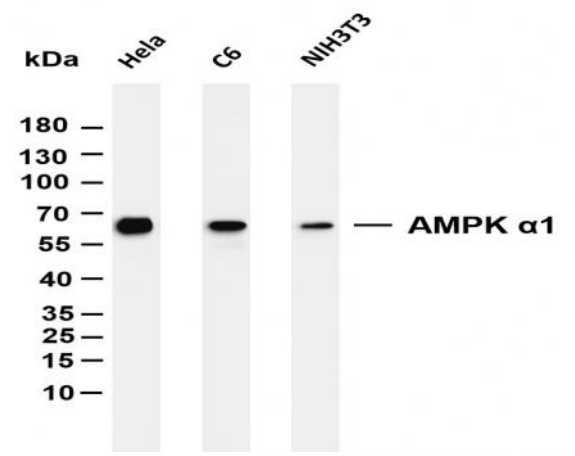
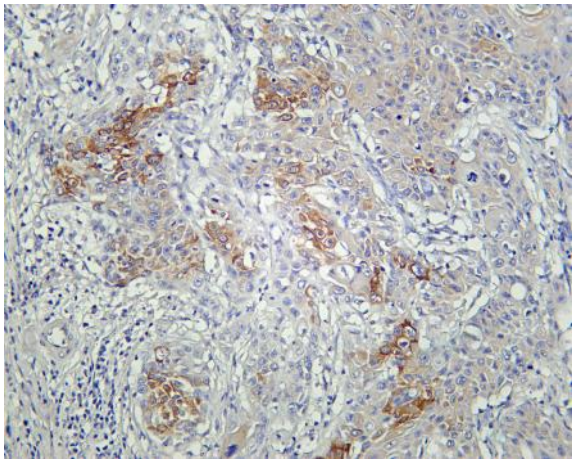
|---|---|
| | 1:50-200 |
| **Purification :** | Protein A |
| **Storage Stability :** | -15°C to -25°C/1 year(Do not lower than -25°C) |
| **Molecularweight :** | 64kD |
| **Observed Band :** | 64kD |
| **Cell Pathway :** | Regulation of autophagy;mTOR;Insulin_Receptor;Adipocytokine;Hypertrophic cardiomyopathy (HCM); |
| **Background :** | 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. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008], |
| **Function :** | catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Binding of AMP results in allosteric activation, inducing phosphorylation on Thr-174 by STK11 in complex with STE20-related adapter-alpha (STRAD alpha) pseudo kinase and CAB39. Also activated by phosphorylation by CAMKK2 triggered by a rise in intracellular calcium ions, without detectable changes in the AMP/ATP ratio.,function:Responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. It also regulates cholesterol synthesis via phosphorylation and inactivation of hormone-sensitive lipase and hydroxymethylglutaryl-CoA reductase. Appears to act as a metabolic stress-sensing protein kinase switching off biosynthetic pathways when cellular ATP levels are depleted and when 5'-AMP rises in response to fuel limitation and/or hypoxia. This is a catalytic s |
| **Subcellular Location :** | Cytoplasm |
| **Expression :** | Brain,Intestine,Liver,Mammary gland,Platelet,Testis |

## Products Images




Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-AMPK α1 (PT0165R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: C6 Lane 3: NIH3T3 Predicted band size: 64kDa Observed band size: 64kDa



Human cervical carcinoma was stained with Anti-AMPK α1 (PT0165R) rabbit antibody