Mouse Monoclonal Antibody AMPK α1 conjugated to Sepharose Beads

CatalogNo: ANT8099-M

Size 200ul

Storage Store at 4 °C for frequent use

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified beads. It is useful for immunoprecipitation.

AMPK α1 (ANT0065R) Rabbit mAb

Formulation: Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg ANaN3.

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat,	• WB,IHC,IF,IP,ELISA

MW	Isotype
• 64kD (Calculated) 64kD (Observed)	• IgG,Kappa

Recommended Dilution Ratios

IP

Basic Information

Clonality	Monoclonal

Clone Number ANT0065R

Immunogen Information **Specificity**

Endogenous

Gene name PRKAA1

Protein Name 5'-AMP-activated protein kinase catalytic subunit alpha-1 (AMPK subunit alpha-1) (AcetylCoA carboxylase kinase) (ACACA kinase) (Hydroxymethylglutaryl-CoA reductase kinase) (HMGCR kinase) (Tau-protein kinase PRK

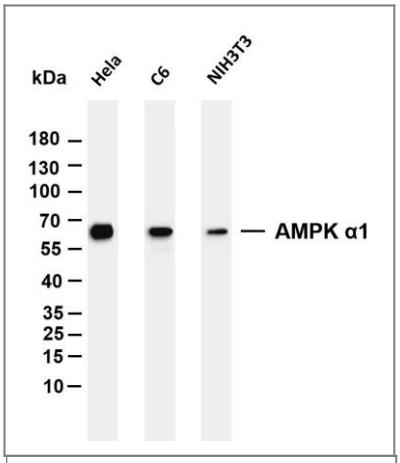
Organism	Gene ID	UniProt ID
Human	5562;	Q13131;
Mouse		Q5EG47;
Rat		P54645;

Cellular Localization Cytoplasm

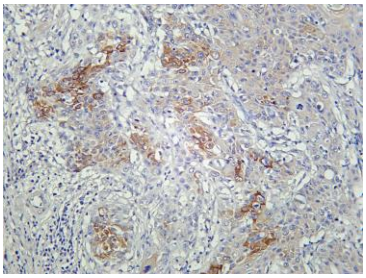
Tissue specificity Brain,Intestine,Liver,Mammary gland,Platelet,Testis

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 subunit.,sequence Caution:Translation N-terminally shortened.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Heterotrimer of an alpha catalytic subunit, a beta and a gamma non-catalytic subunits. Interacts with FNIP1 and FNIP2.,

Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-AMPK α1 (ANT0065R) antibody. The HRPconjugated 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-AMPKα1 (PT0165R) rabbit antibody