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Anti-AMPK gamma 1/2/3 Antibody
Catalog # AP54007

Specification

Anti-AMPK gamma 1/2/3 Antibody - Product Information

Application	**WB, IF**
Primary Accession	P54619
Other Accession	Q9UGJ0, Q9UGI9
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**37579**

Anti-AMPK gamma 1/2/3 Antibody - Additional Information

Gene ID 5571

Other Names
PRKAG1; 5'-AMP-activated protein kinase subunit gamma-1; AMPK gamma1; AMPK subunit gamma-1; AMPKg; PRKAG2; 5'-AMP-activated protein kinase subunit gamma-2; AMPK gamma2; AMPK subunit gamma-2; H91620p; PRKAG3; AMPKG3; 5'-AMP-activated protein kinase subunit gamma-3; AMPK gamma3; AMPK subunit gamma-3

Target/Specificity
KLH-conjugated synthetic peptide encompassing a sequence within the center region of human AMPK gamma 1/2/3. The exact sequence is proprietary.

Dilution
WB~~1/500 - 1/1000
IF~~1/50 - 1/200

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-AMPK gamma 1/2/3 Antibody - Protein Information

Name PRKAG1

Function
AMP/ATP-binding subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism (PubMed:21680840, PubMed:24563466). In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits

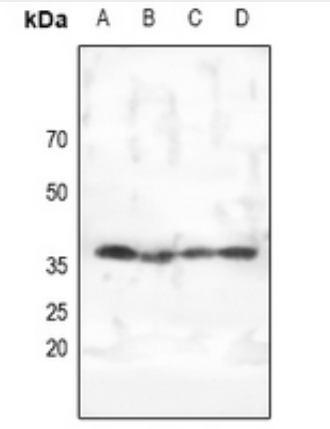
energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation (PubMed:21680840, PubMed:24563466). AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators (PubMed:21680840, PubMed:24563466). Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin (PubMed:21680840, PubMed:24563466). Gamma non-catalytic subunit mediates binding to AMP, ADP and ATP, leading to activate or inhibit AMPK: AMP-binding results in allosteric activation of alpha catalytic subunit (PRKAA1 or PRKAA2) both by inducing phosphorylation and preventing dephosphorylation of catalytic subunits (PubMed:21680840, PubMed:24563466). ADP also stimulates phosphorylation, without stimulating already phosphorylated catalytic subunit (PubMed:21680840, PubMed:24563466). ATP promotes dephosphorylation of catalytic subunit, rendering the AMPK enzyme inactive (PubMed:21680840, PubMed:24563466).

Anti-AMPK gamma 1/2/3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-AMPK gamma 1/2/3 Antibody - Images



Western blot analysis of AMPK gamma 1/2/3 expression in HEK293T (A), HepG2 (B), MCF7 (C), PC3 (D) whole cell lysates.

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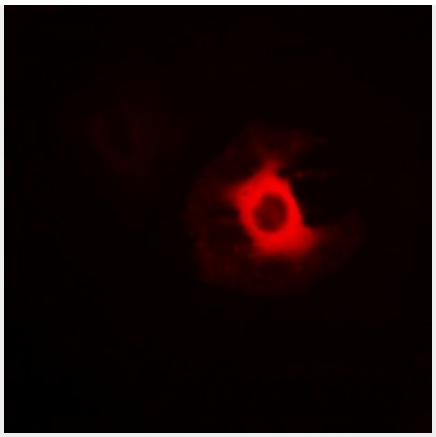

Immunofluorescent analysis of AMPK gamma 1/2/3 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with Alexa Fluor 647-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Anti-AMPK gamma 1/2/3 Antibody - Background

Rabbit polyclonal antibody to AMPK gamma 1/2/3