

AMPK γ 1 Polyclonal Antibody

Catalog # AP68403

Product Information

Application	WB, E
Primary Accession	P54619
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

Additional Information

Other Names	PRKAG1; 5'-AMP-activated protein kinase subunit gamma-1; AMPK gamma1; AMPK subunit gamma-1; AMPKg
Dilution	WB--Western Blot: 1/500 - 1/2000. ELISA: 1/5000. Not yet tested in other applications. E--N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

Protein Information

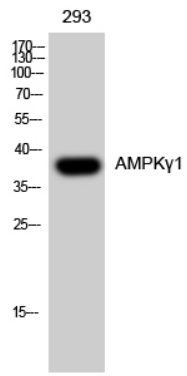
Background

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. 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. AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin. 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. ADP also stimulates phosphorylation, without stimulating already phosphorylated catalytic subunit. ATP promotes dephosphorylation of catalytic subunit, rendering the AMPK enzyme inactive.

Images

Western Blot analysis of 293 cells using AMPK γ 1 Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit

(SC-003, Invent biotech, MN, USA).



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