

**AMPK gamma 1 Rabbit mAb**  
Catalog # AP76387**Specification**

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**AMPK gamma 1 Rabbit mAb - Product Information**

Application	WB, IF
Primary Accession	<a href="#">P54619</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	37579

**AMPK gamma 1 Rabbit mAb - Additional Information**

Gene ID 5571

**Other Names**  
PRKAG1**Dilution**  
WB~~1/500-1/1000  
IF~~1/50-1/200**Format**  
Liquid**AMPK gamma 1 Rabbit mAb - 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](http://www.uniprot.org/citations/21680840)), PubMed: [24563466](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21680840), PubMed: [24563466](http://www.uniprot.org/citations/24563466)). AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators (PubMed: [21680840](http://www.uniprot.org/citations/21680840), PubMed: [24563466](http://www.uniprot.org/citations/24563466)). Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin (PubMed: [21680840](http://www.uniprot.org/citations/21680840), PubMed: [24563466](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/21680840" target="\_blank">21680840</a>, PubMed:<a href="http://www.uniprot.org/citations/24563466" target="\_blank">24563466</a>). ADP also stimulates phosphorylation, without stimulating already phosphorylated catalytic subunit (PubMed:<a href="http://www.uniprot.org/citations/21680840" target="\_blank">21680840</a>, PubMed:<a href="http://www.uniprot.org/citations/24563466" target="\_blank">24563466</a>). ATP promotes dephosphorylation of catalytic subunit, rendering the AMPK enzyme inactive (PubMed:<a href="http://www.uniprot.org/citations/21680840" target="\_blank">21680840</a>, PubMed:<a href="http://www.uniprot.org/citations/24563466" target="\_blank">24563466</a>).

## AMPK gamma 1 Rabbit mAb - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## AMPK gamma 1 Rabbit mAb - Images



