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PRKAG3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP16887b

Specification

PRKAG3 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	O9UGI9
Other Accession	Q8BGM7, Q2LL38, NP_059127.2
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	54258
Antigen Region	426-454

PRKAG3 Antibody (C-term) - Additional Information

Gene ID 53632

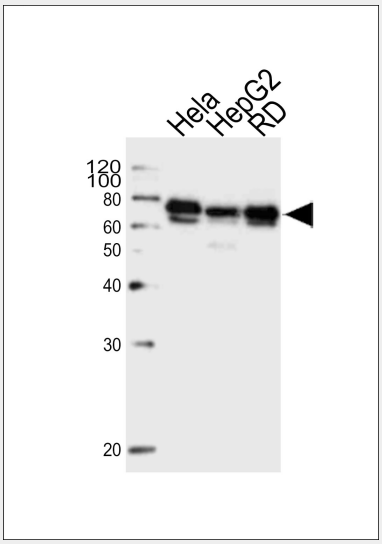
Other Names
5'-AMP-activated protein kinase subunit gamma-3, AMPK gamma3, AMPK subunit gamma-3, PRKAG3, AMPKG3

Target/Specificity
This PRKAG3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 426-454 amino acids from the C-terminal region of human PRKAG3.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.



Western blot analysis of lysates from Hela, HepG2, RD cell line (from left to right), using PRKAG3 Antibody (C-term)(Cat. #AP16887b). AP16887b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

PRKAG3 Antibody (C-term) - Background

The protein encoded by this gene is a regulatory subunit
of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer
consisting of an alpha catalytic subunit, and non-catalytic beta
and gamma subunits. AMPK is an important energy-sensing enzyme that
monitors cellular energy status. In response to cellular metabolic
stresses, AMPK is activated, and thus phosphorylates and
inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy
beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in
regulating de novo biosynthesis of fatty acid and cholesterol. This

Precautions
PRKAG3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PRKAG3 Antibody (C-term) - Protein Information

Name PRKAG3

Synonyms AMPKG3

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. 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.

Tissue Location
Skeletal muscle, with weak expression in heart and pancreas

PRKAG3 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

subunit is one of the gamma regulatory subunits of AMPK. It is
dominantly expressed in skeletal muscle. Studies of the pig
counterpart suggest that this subunit may play a key role in the
regulation of energy metabolism in skeletal muscle. [provided by
RefSeq].

PRKAG3 Antibody (C-term) - References

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Ramanathan, L., et al. Protein Expr. Purif. 70(1):13-22(2010)
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- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture