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AMPK beta2 (PRKAB2) Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7046a

Specification

AMPK beta2 (PRKAB2) Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	O43741
Other Accession	NP_005390
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**30302**
Antigen Region	**3-33**

AMPK beta2 (PRKAB2) Antibody (N-term) - Additional Information

Gene ID 5565

Other Names
5'-AMP-activated protein kinase subunit beta-2, AMPK subunit beta-2, PRKAB2

Target/Specificity
This AMPK beta2 (PRKAB2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 3-33 amino acids from the N-terminal region of human AMPK beta2 (PRKAB2).

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.

Precautions
AMPK beta2 (PRKAB2) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

AMPK beta2 (PRKAB2) Antibody (N-term) - Protein Information

Name PRKAB2

Function Non-catalytic subunit of AMP-activated protein kinase (AMPK), an energy sensor protein

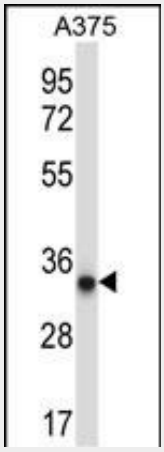
kinase that plays a key role in regulating cellular energy metabolism. In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation. 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. Beta non-catalytic subunit acts as a scaffold on which the AMPK complex assembles, via its C-terminus that bridges alpha (PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2 or PRKAG3).

AMPK beta2 (PRKAB2) Antibody (N-term) - 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

AMPK beta2 (PRKAB2) Antibody (N-term) - Images



PRKAB2 Antibody (A18) (Cat. #AP7046a) western blot analysis in A375 cell line lysates (35ug/lane).This demonstrates the PRKAB2 antibody detected the PRKAB2 protein (arrow).

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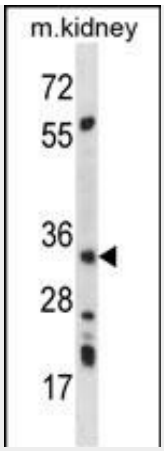

PRKAB2 Antibody (A18) (Cat. #AP7046a) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the PRKAB2 antibody detected the PRKAB2 protein (arrow).

AMPK beta2 (PRKAB2) Antibody (N-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 subunit may be a positive regulator of AMPK activity. The myristoylation and phosphorylation of this subunit have been shown to affect the enzyme activity and cellular localization of AMPK. This subunit may also serve as an adaptor molecule mediating the association of the AMPK complex.

AMPK beta2 (PRKAB2) Antibody (N-term) - References

Minokoshi, Y., et al., Nature 428(6982):569-574 (2004).
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Park, S.H., et al., J. Appl. Physiol. 93(6):2081-2088 (2002).
Xu, X.R., et al., Proc. Natl. Acad. Sci. U.S.A. 98(26):15089-15094 (2001).
Thornton, C., et al., J. Biol. Chem. 273(20):12443-12450 (1998).