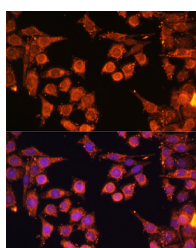


PRKAA1/PRKAA2 Polyclonal Antibody

Catalog No.	E-AB-67096	Reactivity	H,M,R
Storage	Store at -20°C. Avoid freeze / thaw cycles.	Host	Rabbit
Applications	IF	Isotype	IgG

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Images



Immunofluorescence analysis of HeLa cells using PRKAA1/PRKAA2 Polyclonal Antibody at dilution of 1:100. Blue: DAPI for nuclear staining.

Immunogen Information

Immunogen	Recombinant protein of human PRKAA1/PRKAA2.
GeneID	5562/5563
Swissprot	Q13131,P54646
Synonyms	AMPKa1/AMPKa2

Product Information

Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Purify	Affinity purification
Dilution	IF 1:50-1:100

Background

The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed./The protein encoded by this gene is a catalytic 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. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia.

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Applications:WB-Western Blot IHC-Immunohistochemistry IF-Immunofluorescence IP-Immunoprecipitation FC-Flow cytometry ChIP-Chromatin Immunoprecipitation Reactivity: H-Human R-Rat M-Mouse Mk-Monkey Dg-Dog Ch-Chicken Hm-Hamster Rb-Rabbit Sh-Sheep Pg-Pig Z-Zebrafish X-Xenopus C-Cow.