Anti-PRKAA2 Antibody

Description	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.

Model	STJ115987
Host	Rabbit
Reactivity	Human, Mouse
Applications	IF, WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 343-552 of human PRKAA2 (NP_006243.2).
Gene ID	5563
Gene Symbol	PRKAA2
Dilution range	WB 1:500 - 1:2000 IF 1:50 - 1:200
Purification	Affinity purification
Note	For Research Use Only (RUO).

Protein Name	5'-AMP-activated protein kinase catalytic subunit alpha-2 AMPK subunit alpha-2
Molecular Weight	62.32 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:9377OMIM:600497Reactome:R-HSA-1445148
Alternative Names	5'-AMP-activated protein kinase catalytic subunit alpha-2 AMPK subunit alpha-2
Function	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
Cellular Localization	Cytoplasm,
Post-translational Modifications	Ubiquitinated,