Anti-PRKAG3 Antibody

Description	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 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.

Model	STJ116067
Host	Rabbit
Reactivity	Human
Applications	IF
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 1-210 of human PRKAG3 (NP_059127.2).
Gene ID	53632
Gene Symbol	PRKAG3
Dilution range	IF 1:50 - 1:100
Tissue Specificity	Skeletal muscle, with weak expression in heart and pancreas
Purification	Affinity purification

Note	For Research Use Only (RUO).
Protein Name	5'-AMP-activated protein kinase subunit gamma-3 AMPK gamma3 AMPK subunit gamma-3
Molecular Weight	54.258 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:9387OMIM:604976Reactome:R-HSA-1445148
Alternative Names	5'-AMP-activated protein kinase subunit gamma-3 AMPK gamma3 AMPK subunit gamma-3
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
Post-translational Modifications	Phosphorylated by ULK1