

Product name:	AMPK γ 2 Rabbit Polyclonal Antibody
Cat number:	ABN06856
Conjugate:	Unconjugated
Size:	100 μ L
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human PRKAG2. AA range:1-50
Reactivity:	Human,Mouse
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Molecular Weight:	65kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

AMP-activated protein kinase (AMPK) is a heterotrimeric protein composed of a catalytic alpha subunit, a noncatalytic beta subunit, and a noncatalytic regulatory gamma subunit. Various forms of each of these subunits exist, encoded by different genes. AMPK is an important energy-sensing enzyme that monitors cellular energy status and functions by inactivating key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. This gene is a member of the AMPK gamma subunit family. Mutations in this gene have been associated with Wolff-Parkinson-White syndrome, familial hypertrophic cardiomyopathy, and glycogen storage disease of the heart. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jan 2015],disease:Defects in PRKAG2 are a cause of cardiomyopathy familial hypertrophic with Wolff-Parkinson-White syndrome (CHMWPWS) [MIM:600858]. HCM due to PRKAG2 mutations is probably due to polysaccharide storage in the heart. Defects in PRKAG2 may not be a frequent cause of HCM where no features of pre-excitation are found in affected individuals.,disease:Defects in PRKAG2 are a cause of glycogen storage disease of heart lethal congenital (GSDH) [MIM:261740]; also known as phosphorylase kinase deficiency of heart or congenital nonlysosomal cardiac glycogenosis. GSDH is a rare disease which leads to death within a few weeks to a few months after birth, through heart failure and respiratory compromise.,disease:Defects in PRKAG2 are the cause of Wolff-Parkinson-White syndrome (WPWS) [MIM:194200]; also known as preexcitation syndrome. It is the second most common cause of paroxysmal supraventricular tachycardia.,function:AMPK is responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. Also regulates cholesterol synthesis via phosphorylation and inactivation of hydroxymethylglutaryl-CoA reductase and hormone-sensitive lipase. This is a regulatory subunit.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,sequence caution:Frameshifts are upstream of the initiating Met of isoform B.,similarity:Belongs to the 5'-AMP-activated protein kinase gamma subunit family.,similarity:Contains 4 CBS domains.,subunit:Heterotrimer of an alpha catalytic subunit, a beta and a gamma non-catalytic regulatory subunits.,tissue specificity:Isoform B is ubiquitously expressed except in liver and thymus. The highest level is detected in heart with abundant expression in placenta and testis.,