

Summary

Production Name	AMPKy2 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PRKAG2
Alternative Names	PRKAG2; 5'-AMP-activated protein kinase subunit gamma-2; AMPK gamma2; AMPK subunit gamma-2; H91620p
Gene ID	51422.0
SwissProt ID	Q9UGJ0.The antiserum was produced against synthesized peptide derived from human PRKAG2. AA range:1-50

Application

Dilution Ratio	WB 1:500-1:2000, IHC-P 1:100-1:300, IF-P/IF-F/ICC/IF 1:200-1:1000, ELISA 1:20000.Not yet tested in other applications.
Molecular Weight	65kDa

Background

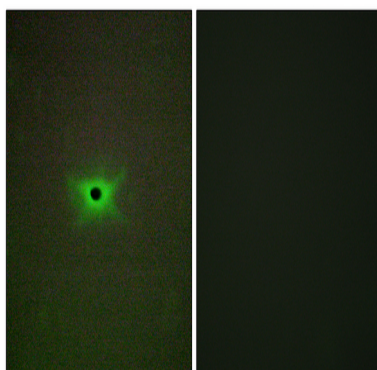
AMP-activated protein kinase (AMPK) is a heterotrimeric protein composed of a catalytic α subunit, a noncatalytic β subunit, and a noncatalytic regulatory γ subunit. Various forms of each of these subunits exist, encoded by different genes. AMPK is an important energy-sensing enzyme that monitors cellular 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 γ 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 γ subunit family.,similarity:Contains 4 CBS domains.,subunit:Heterotrimer of an α catalytic subunit, a β and a γ 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.,

Research Area

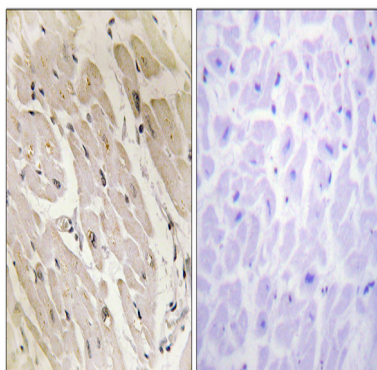
Insulin Receptor; AMPK

Image Data

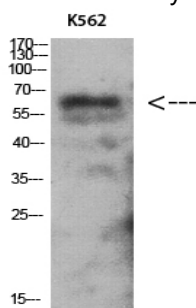
Product Name: AMPKy2 Rabbit Polyclonal Antibody
Catalog #: APRab06856



Immunofluorescence analysis of A549 cells, using PRKAG2 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human heart tissue, using PRKAG2 Antibody. The picture on the right is blocked with the synthesized peptide.



Western Blot analysis of K562 using Antibody diluted at 1:1000. Secondary antibody was diluted at 1:20000

Note

For research use only.