Product Name: AMPKγ2 Rabbit Polyclonal Antibody
Catalog #: APRab06856

Summary

Production Name	AMPKγ2 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,IHC,WB,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 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	65kD

Product Name: AMPKγ2 Rabbit Polyclonal Antibody
Catalog #: APRab06856

Background

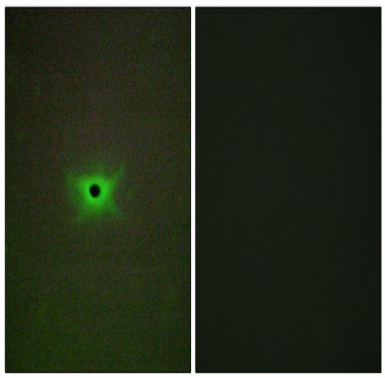
AMP-activated protein kinase (AMPK) is a heterotrimeric protein composed of a catalytic alpha subunit, a noncatalytic beta subunit, and a noncatalytic regulatory gamma subunit. Various forms of each of these subunits exist, encoded by different genes. AMPK is an important energy-sensing enzyme that monitors 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.,

Research Area

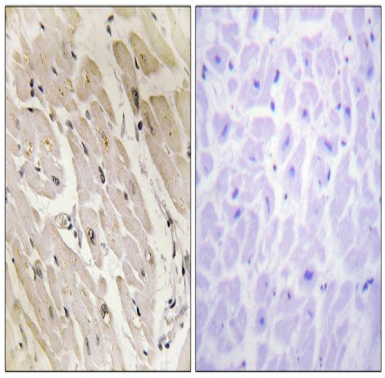
Insulin Receptor; AMPK

Image Data

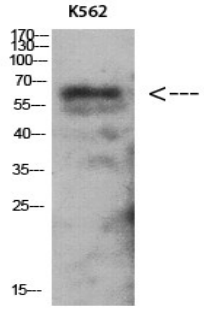
Product Name: AMPKγ2 Rabbit Polyclonal Antibody
Catalog #: APRab06856



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.