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Datasheet for ABIN7142682
anti-PRKAG1 antibody (AA 1-331)

3 Images

Overview

Quantity:	100 µg
Target:	PRKAG1
Binding Specificity:	AA 1-331
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKAG1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human 5\\\'-AMP-activated protein kinase subunit gamma-1 protein (1-331AA)
Isotype:	IgG
Cross-Reactivity:	Human, Rat
Purification:	>95%, Protein G purified

Target Details

Target:	PRKAG1
Alternative Name:	PRKAG1 (PRKAG1 Products)
Background:	Background: 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

Target Details

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, probably by indirectly activating myosin. Gamma non-catalytic subunit mediates binding to AMP, ADP and ATP, leading to activate or inhibit AMPK: AMP-binding results in allosteric activation of alpha catalytic subunit (PRKAA1 or PRKAA2) both by inducing phosphorylation and preventing dephosphorylation of catalytic subunits. ADP also stimulates phosphorylation, without stimulating already phosphorylated catalytic subunit. ATP promotes dephosphorylation of catalytic subunit, rendering the AMPK enzyme inactive.

Aliases: 5' AMP activated protein kinase gamma 1 subunit antibody, 5' AMP activated protein kinase subunit gamma 1 antibody, 5"-AMP-activated protein kinase subunit gamma-1 antibody, AAKG1_HUMAN antibody, AMP activated protein kinase noncatalytic gamma 1 subunit antibody, AMPK gamma 1 chain antibody, AMPK gamma1 antibody, AMPK subunit gamma-1 antibody, AMPK γ antibody, MGC8666 antibody, PRKAG 1 antibody, PRKAG1 antibody, Protein kinase AMP activated gamma 1 non catalytic subunit antibody, protein kinase, AMP-activated, noncatalytic gamma-1 antibody

UniProt: [P54619](#)

Pathways: [AMPK Signaling](#), [Regulation of Carbohydrate Metabolic Process](#), [Warburg Effect](#)

Application Details

Application Notes: Recommended dilution: WB:1:500-1:5000, IHC:1:20-1:200, IF:1:50-1:200,

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Preservative: 0.03 % Proclin 300
Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4

Preservative: ProClin

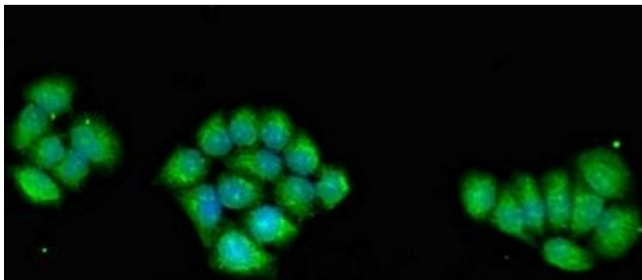
Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage: -20 °C,-80 °C

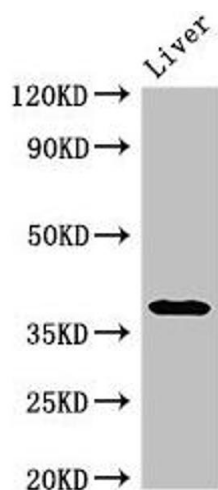
Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



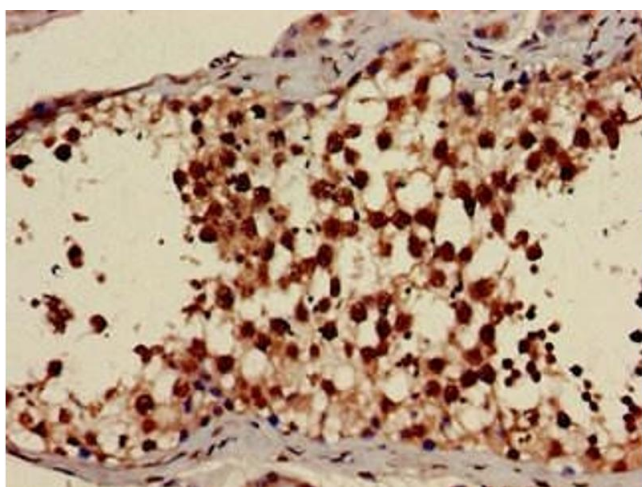
Immunofluorescence

Image 1. Immunofluorescent analysis of PC-3 cells using ABIN7142682 at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)



Western Blotting

Image 2. Western Blot Positive WB detected in: Rat liver tissue All lanes: PRKAG1 antibody at 3 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 38, 35, 39 kDa Observed band size: 38 kDa



Immunohistochemistry

Image 3. Immunohistochemistry of paraffin-embedded human testis tissue using ABIN7142682 at dilution of 1:100