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Datasheet for ABIN7142668

anti-PRKAG1 antibody (AA 1-331) (Biotin)

Overview

Quantity:	100 µg
Target:	PRKAG1
Binding Specificity:	AA 1-331
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKAG1 antibody is conjugated to Biotin
Application:	ELISA

Product Details

Immunogen:	Recombinant Human 5'-AMP-activated protein kinase subunit gamma-1 protein (1-331AA)
Isotype:	IgG
Cross-Reactivity:	Human
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, AMPKg 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: Optimal working dilution should be determined by the investigator.

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.