Datasheet for ABIN6259312

anti-PRKAG1/2/3 antibody

3 Images

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Overview

Quantity:	100 µL
Target:	PRKAG1/2/3
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKAG1/2/3 antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Immunogen:	A synthesized peptide
Isotype:	IgG
Specificity:	PRKAG1/2/3 Antibody detects endogenous levels of total PRKAG1/2/3
Cross-Reactivity:	Human, Mouse (Murine), Rat (Rattus)
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

Target Details

Target:	PRKAG1/2/3
Alternative Name:	PRKAG1/2/3 (PRKAG1/2/3 Products)
Background:	Description: AMP/ATP-binding subunit of AMP-activated protein kinase (AMPK), an energy

Target Details

	sensor protein kinase that plays a key role in regulating cellular energy metabolism. In response 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. Gene: PRKAG1
Molecular Weight:	38 kDa
Gene ID:	5571
UniProt:	P54619, Q9UGJ0, Q9UGI9

Application Details

Application Notes:	WB 1:500~1:1000, IF/ICC 1:100-1:500
Restrictions:	For Research Use only

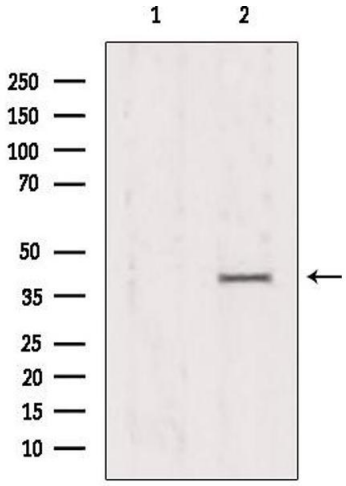
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C.Stable for 12 months from date of receipt

Handling

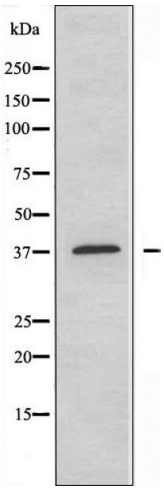
Expiry Date:	12 months

Images



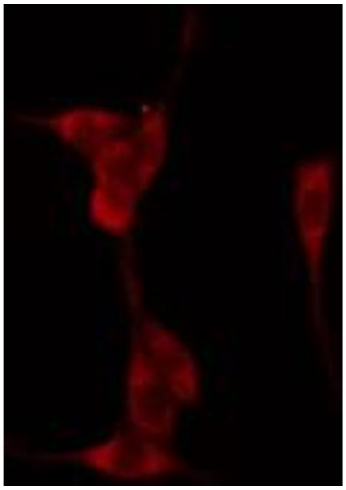
Western Blotting

Image 1. Western blot analysis of extracts from Hela, using PRKAG1/2/3 Antibody. Lane 1 was treated with the antigen-specific peptide.



Western Blotting

Image 2. Western blot analysis of extracts from Jurkat cells using PRKAG1/2/3 antibody.



Immunofluorescence (fixed cells)

Image 3. ABIN6274291 staining 293 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody(Cat.# S0006), diluted at 1/600, was used as secondary antibody.