Datasheet for ABIN391303

anti-PRKAA1 antibody (C-Term)

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Overview

Quantity:	400 µL
Target:	PRKAA1
Binding Specificity:	AA 479-510, C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKAA1 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	This AMPK alpha 1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 479-510 amino acids from the C-terminal region of human AMPK alpha 1.
Clone:	RB2520
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	PRKAA1
Alternative Name:	AMPK alpha 1 (PRKAA1 Products)

Target Details

Background:	AMPK is responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. It also regulates cholesterol synthesis via phosphorylation and inactivation of hormone-sensitive lipase and hydroxymethylglutaryl-CoA reductase. It appears to act as a metabolic stress-sensing protein kinase switching off biosynthetic pathways when cellular ATP levels are depleted and when 5'-AMP rises in response to fuel limitation and/or hypoxia. AMPK alpha1, a member of the Ser/Thr protein kinase family, is a catalytic subunit of AMPK.
Molecular Weight:	64009
Gene ID:	5562
NCBI Accession:	NP_006242, NP_996790
UniProt:	Q13131
Pathways:	AMPK Signaling, Carbohydrate Homeostasis, Regulation of Carbohydrate Metabolic Process, Warburg Effect

Application Details

Application Notes:	WB: 1:8000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
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:	4 °C,-20 °C
Storage Comment:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots to prevent freeze-thaw cycles.
Expiry Date:	6 months

Publications

Product cited in:	Heydasch, Kessler, Warnke, Eschrich, Scholz, Bigl: "Functional diversity of PFKFB3 splice

Publications

variants in glioblastomas." in: **PloS one**, Vol. 16, Issue 7, pp. e0241092, (2021) (PubMed).

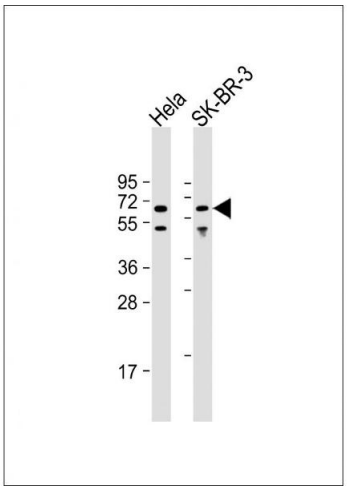
Lee, Lee, Yun, Jang, Kang, Kim, Choi, Park: "Silver nanoparticles affect glucose metabolism in hepatoma cells through production of reactive oxygen species." in: **International journal of nanomedicine**, Vol. 11, pp. 55-68, (2016) (PubMed).

Reddy, Fernandes, Deshpande, Weisberg, Inguilizian, Abdel-Wahab, Kung, Levine, Griffin, Sattler: "The JAK2V617F oncogene requires expression of inducible phosphofructokinase/fructose-bisphosphatase 3 for cell growth and increased metabolic activity." in: **Leukemia**, Vol. 26, Issue 3, pp. 481-9, (2012) (PubMed).

Ando, Uehara, Kogure, Asano, Nakajima, Abe, Kawauchi, Tanaka: "Interleukin 6 enhances glycolysis through expression of the glycolytic enzymes hexokinase 2 and 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase-3." in: **Journal of Nippon Medical School = Nippon Ika Daigaku zasshi**, Vol. 77, Issue 2, pp. 97-105, (2010) (PubMed).

Yamasaki, Hayashi, Okamoto, Osanai, Lee: "Insulin-independent promotion of chemically induced hepatocellular tumor development in genetically diabetic mice." in: **Cancer science**, Vol. 101, Issue 1, pp. 65-72, (2010) (PubMed).

Images



Western Blotting

Image 1. All lanes : Anti-PKalpha1 Antibody at 1:8000 dilution Lane 1: Hela whole cell lysate Lane 2: SK-BR-3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 64 kDa Blocking/Dilution buffer: 5 % NFDM/TBST.