Datasheet for ABIN3021788

anti-PRKAA1 antibody (AA 1-300)

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Overview

Quantity:	100 µL
Target:	PRKAA1
Binding Specificity:	AA 1-300
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKAA1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 1-300 of human AMPKalpha1 alpha 1 (NP_006242.5).
Sequence:	MRRLSSWRKM ATAEKQKHDG RVKIGHYILG DTLGVGTFGK VKVGKHELTG HKVAVKILNR QKIRSLDVVG KIRREIQNLK LFRHPHIIKL YQVISTPSDI FMVMEYVSGG ELFDYICKNG RLDEKESRRL FQQILSGVDY CHRHMVVHRD LKPENVLLDA HMNAKIADFG LSNMMSDGEF LRTSCGSPNY AAPEVISGRL YAGPEVDIWS SGVILYALLC GTLPFDDDHV PTLFKKICDG IFYTPQYLNP SVISLLKHML QVDPMKRATI KDIREHEWFK QDLPKYLFPE DPSYSSTMID
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Characteristics:	Polyclonal Antibodies

Target Details

Target:	PRKAA1
Alternative Name:	PRKAA1 (PRKAA1 Products)
Background:	The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed.,PRKAA1,AMPK,AMPKa1,Epigenetics & Nuclear Signaling,Translation Control,Regulation of eIF4 and p70 S6 Kinase,Cancer,Signal Transduction,Kinase,Serine/threonine kinases,PI3K-Akt Signaling Pathway,mTOR Signaling Pathway,Cell Biology & Developmental Biology,Apoptosis,Autophagy,Endocrine & Metabolism,Mitochondrial metabolism,Lipid Metabolism,AMPK Signaling Pathway,Insulin Receptor Signaling Pathway,Warburg Effect,Neuroscience,Neurodegenerative Diseases,Amyloid Plaque and Neurofibrillary Tangle Formation in Alzheimer's Disease,Cardiovascular,Hypoxia,Lipids,Fatty Acids,Regulator of mTOR complex function,Regulators,PRKAA1
Molecular Weight:	64 kDa/65 kDa
Gene ID:	5562
UniProt:	Q13131
Pathways:	AMPK Signaling, Carbohydrate Homeostasis, Regulation of Carbohydrate Metabolic Process, Warburg Effect

Application Details

Application Notes:	WB,1:500 - 1:2000,IF,1:50 - 1:200
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide,50 % glycerol, pH 7.3.
Preservative:	Sodium azide

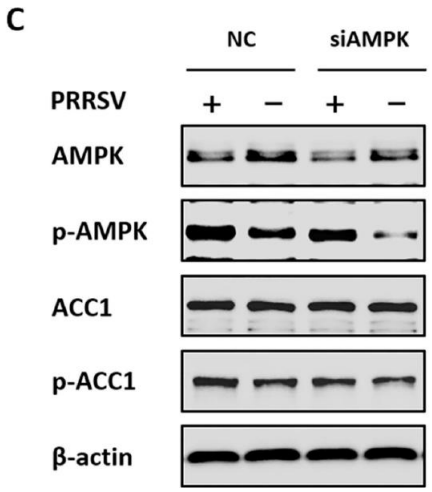
Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid freeze / thaw cycles
Storage:	-20 °C
Storage Comment:	Store at -20°C. Avoid freeze / thaw cycles.

Publications

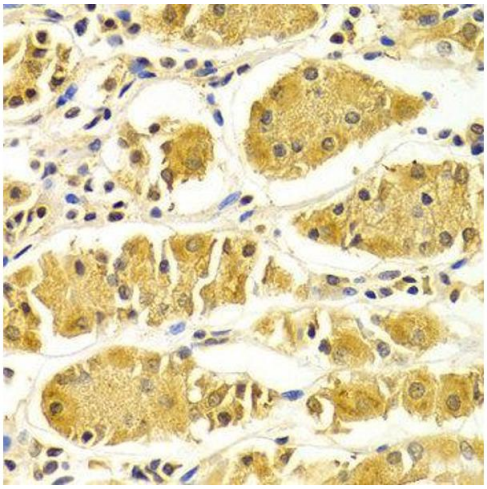
Product cited in:	Zhou, Jiang, Dong, Yan, You, Su, Gong: "The proteins interacting with C-terminal of μ receptor are identified by bacterial two-hybrid system from brain cDNA library in morphine-dependent rats." in: **Life sciences**, Vol. 143, pp. 156-67, (2016) (PubMed).

Images



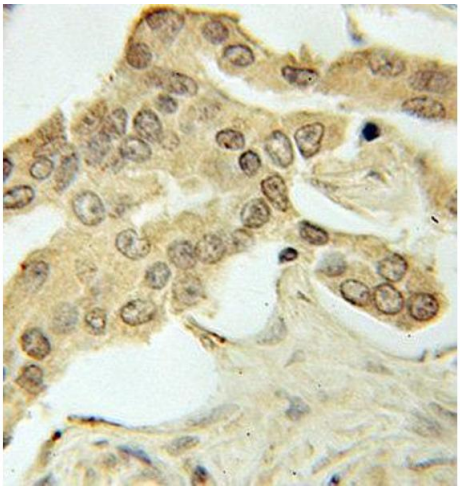
Western Blotting

Image 1. Acetyl-CoA carboxylase 1 (ACC1) activity is regulated by AMPK during PRRSV infection. (A) Model of fatty acid (FA) synthesis via the AMPK-ACC1 pathway. The levels of phosphorylated ACC1 (inactive form) were enhanced by active AMPK, resulting in inhibitory FA synthesis. (B) PK-15CD163 cells were infected with PRRSV (MOI = 0.5) for 12, 24, or 36 h. Lysates were collected and tested by western blot assay for the levels of total AMPK, p-AMPK, total ACC1, phosphorylated ACC1 (p-ACC1), and PRRSV-N protein. β-actin was measured as a loading control. (C) PK-15CD163 cells were transfected with AMPK-specific siRNAs or control siRNA (NC) for 24 h and infected with PRRSV (MOI = 0.5) for 24 h for western blot analysis. - figure provided by CiteAb. Source: PMID31835577



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded Human gastric using PRKAA1 antibody at dilution of 1:100 (x400 lens).



Immunohistochemistry

Image 3.

Please check the product details page for more images. Overall 13 images are available for ABIN3021788.