Datasheet for ABIN7265094

anti-PRKAA1 antibody (pThr172, pThr183)

7 Images

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Overview

Quantity:	200 µL
Target:	PRKAA1
Binding Specificity:	pThr172, pThr183
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKAA1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	A phospho specific peptide corresponding to residues surrounding T172 of human AMPKalpha
Isotype:	IgG
Characteristics:	Phosphorylated antibody
Purification:	Affinity purification

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

Target Details

	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./The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia.
Molecular Weight:	Observed_MW: 64 kDa Calculated_MW: 64 kDa/65 kDa
Gene ID:	5562, 5563
UniProt:	Q13131, P54646
Pathways:	AMPK Signaling, Carbohydrate Homeostasis, Regulation of Carbohydrate Metabolic Process, Warburg Effect

Application Details

Application Notes:	WB 1:500-1:2000 IHC 1:50-1:100
Restrictions:	For Research Use only

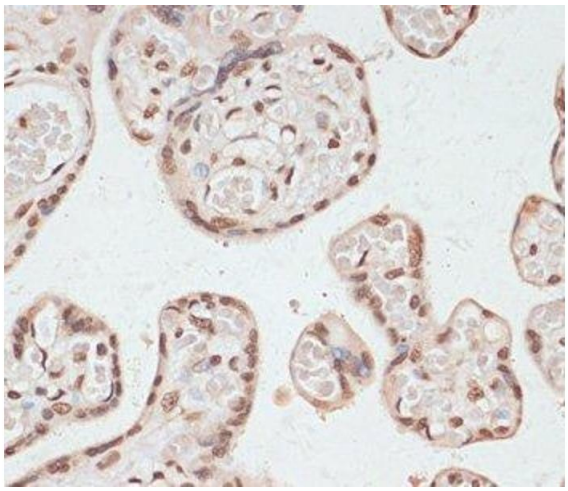
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

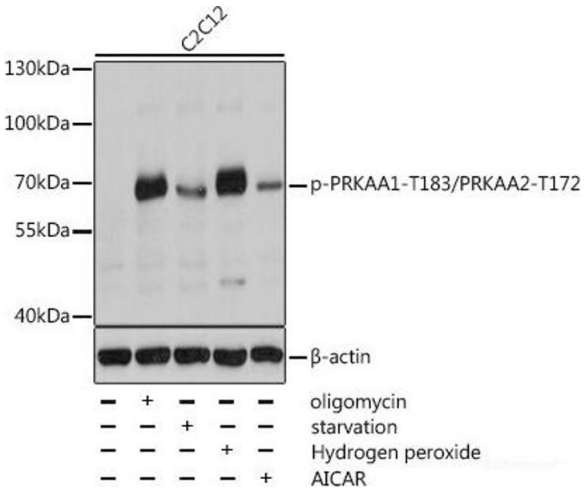
Storage:	-20 °C
Storage Comment:	Store at -20°C. Avoid freeze / thaw cycles.

Images



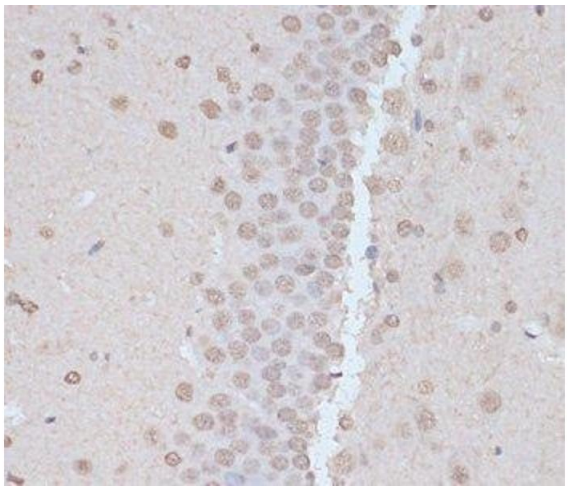
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry of paraffin-embedded Human placenta using Phospho-PRKAA1(T183)/PRKAA2(T172) Polyclonal Antibody at dilution of 1:100 (40x lens).



Western Blotting

Image 2. Western blot analysis of extracts of C2C12 cells using Phospho-PRKAA1(T183)/PRKAA2(T172) Polyclonal Antibody at dilution of 1:2000. C2C12 cells were treated by Oligomycin (0. 5uM) for 30 minutes, treated by serum-starvation overnight, treated by Hydrogen Peroxide (2nM) for 15 minutes or treated by AICAR (0. 5 mM) for 30 minutes after serum-starvation overnight.



Immunohistochemistry (Paraffin-embedded Sections)

Image 3. Immunohistochemistry of paraffin-embedded Rat brain using Phospho-PRKAA1(T183)/PRKAA2(T172) Polyclonal Antibody at dilution of 1:100 (40x lens).

Please check the product details page for more images. Overall 7 images are available for ABIN7265094.