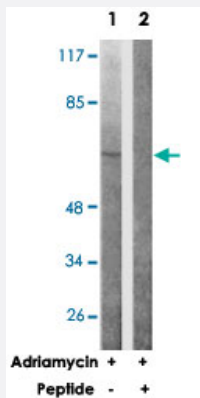


PRKAA1 polyclonal antibody

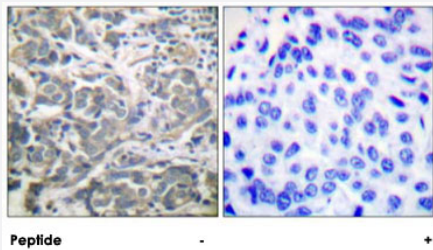
Catalog # PAB18089 Size 100 ug

Applications



Western Blot (Cell lysate)

Western blot analysis of extracts from COS-7 cells treated with Adriamycin (0.5 ng/mL, 24 hours) using PRKAA1 polyclonal antibody (Cat # PAB18089). Peptide "+" means "peptide blocking".



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using PRKAA1 polyclonal antibody (Cat # PAB18089). Peptide "+" means "peptide blocking".

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of PRKAA1.
Immunogen	A synthetic peptide corresponding to human PRKAA1.
Host	Rabbit
Reactivity	Human, Mouse, Rat
Specificity	This antibody is specific to PRKAA1.
Form	Liquid

Purification	Affinity purification
Concentration	1 mg/mL
Recommend Usage	Western Blot (1:500-1:1000) Immunohistochemistry (1:50-1:100) ELISA (1:40000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, 150mM NaCl, pH 7.4 (50% glycerol, 0.02% sodium azide)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

Western blot analysis of extracts from COS-7 cells treated with Adriamycin (0.5 ng/mL, 24 hours) using PRKAA1 polyclonal antibody (Cat # PAB18089).

Peptide "+" means "peptide blocking".

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using PRKAA1 polyclonal antibody (Cat # PAB18089).

Peptide "+" means "peptide blocking".

- Enzyme-linked Immunoabsorbent Assay

Gene Info — PRKAA1

Entrez GeneID	5562
Protein Accession#	Q13131
Gene Name	PRKAA1
Gene Alias	AMPK, AMPKa1, MGC33776, MGC57364
Gene Description	protein kinase, AMP-activated, alpha 1 catalytic subunit
Omim ID	602739

Gene Ontology

[Hyperlink](#)

Gene Summary

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. [provided by RefSeq]

Other Designations

5'-AMP-activated protein kinase, catalytic alpha-1 chain|AMP -activate kinase alpha 1 subunit|AMP-activated protein kinase, catalytic, alpha-1|AMPK alpha 1

Publication Reference

- [Genetic model for the chronic activation of skeletal muscle AMP-activated protein kinase leads to glycogen accumulation.](#)

Barre L, Richardson C, Hirshman MF, Brozinick J, Fiering S, Kemp BE, Goodyear LJ, Witters LA.

American Journal of Physiology. Endocrinology and Metabolism 2007 Mar; 292(3):E802.

Application: WB, Mouse, Mouse gastrocnemius muscles

- [Adenosine 5'-monophosphate-activated protein kinase regulates progesterone secretion in rat granulosa cells.](#)

Tosca L, Froment P, Solnais P, Ferre P, Fougelle F, Dupont J.

Endocrinology 2005 Oct; 146(10):4500.

- [Glycogen debranching enzyme association with beta-subunit regulates AMP-activated protein kinase activity.](#)

Sakoda H, Fujishiro M, Fujio J, Shojima N, Ogiwara T, Kushiya A, Fukushima Y, Anai M, Ono H, Kikuchi M, Horike N, Viana AY, Uchijima Y, Kurihara H, Asano T.

American Journal of Physiology. Endocrinology and Metabolism 2005 Sep; 289(3):E474.

Application: IP, WB-Tr, Monkey, COS-7 cells

Pathway

- [Adipocytokine signaling pathway](#)
- [Hypertrophic cardiomyopathy \(HCM\)](#)
- [Insulin signaling pathway](#)
- [mTOR signaling pathway](#)
- [Regulation of autophagy](#)

Disease

- [Alzheimer disease](#)
- [Atherosclerosis](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Colonic Neoplasms](#)
- [Coronary Artery Disease](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Drug Toxicity](#)
- [Edema](#)
- [Hypercholesterolemia](#)
- [Metabolic Syndrome X](#)
- [Neoplasms](#)
- [Osteoporosis](#)
- [Rectal Neoplasms](#)