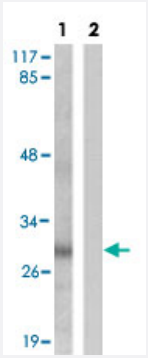
PRKAB1 (phospho S182) polyclonal antibody

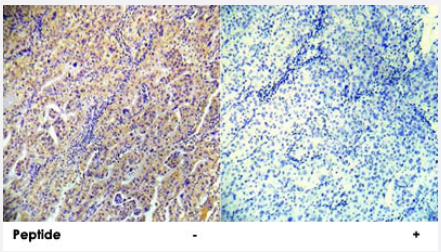
Catalog # PAB16948 Size 100 ug

Applications



Western Blot (Cell lysate)

Western blot analysis of extracts from Jurkat cells.
Lane 1 : Using PRKAB1 (phospho S182) polyclonal antibody (Cat # PAB16948).
Lane 2 : Using the same antibody preincubated with synthesized peptide.



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

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using PRKAB1 (phospho S182) polyclonal antibody (Cat # PAB16948).

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of PRKAB1.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding S182 of human PRKAB1.
Host	Rabbit
Reactivity	Human, Mouse, Rat
Specificity	This antibody detects endogenous levels of PRKAB1 only when phosphorylated at serine 182.
Form	Liquid

Recommend Usage	Western Blot (1:500-1:1000) Immunohistochemistry (1:50-1:100) ELISA (1:4000) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM PBS, 0.15 M NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C for three months. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

  Western blot analysis of extracts from Jurkat cells.
  Lane 1 : Using PRKAB1 (phospho S182) polyclonal antibody (Cat # PAB16948).
  Lane 2 : Using the same antibody preincubated with synthesized peptide.

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

  Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue using PRKAB1 (phospho S182) polyclonal antibody (Cat # PAB16948).

- Enzyme-linked Immunoabsorbent Assay

Gene Info — PRKAB1

Entrez GeneID	5564
Protein Accession#	Q9Y478
Gene Name	PRKAB1
Gene Alias	AMPK, HAMPKb, MGC17785
Gene Description	protein kinase, AMP-activated, beta 1 non-catalytic subunit
Omim ID	602740
Gene Ontology	Hyperlink

Gene Summary	The protein encoded by this gene is a regulatory 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. This subunit may be a positive regulator of AMPK activity. The myristoylation and phosphorylation of this subunit have been shown to affect the enzyme activity and cellular localization of AMPK. This subunit may also serve as an adaptor molecule mediating the association of the AMPK complex. [provided by RefSeq
Other Designations	5'-AMP-activated protein kinase beta-1 subunit|AMP-activated protein kinase beta 1 non-catalytic subunit|AMP-activated protein kinase beta subunit|AMPK beta -1 chain|AMPK beta 1|protein kinase, AMP-activated, noncatalytic, beta-1

Publication Reference

- The AMP-activated protein kinase pathway--new players upstream and downstream.

  Hardie DG.

  Journal of Cell Science 2004 Nov; 117(Pt 23):5479.

- The tumor suppressor LKB1 kinase directly activates AMP-activated kinase and regulates apoptosis in response to energy stress.

  Shaw RJ, Kosmatka M, Bardeesy N, Hurley RL, Witters LA, DePinho RA, Cantley LC.

  PNAS 2004 Feb; 101(10):3329.

- Role of AMP-activated protein kinase in cyclic AMP-dependent lipolysis In 3T3-L1 adipocytes.

  Yin W, Mu J, Birnbaum MJ.

  The Journal of Biological Chemistry 2003 Oct; 278(44):43074.

Pathway

- Adipocytokine signaling pathway
- Hypertrophic cardiomyopathy (HCM)
- Insulin signaling pathway

Disease

- Alzheimer disease
- Atherosclerosis
- Calcinosis
- Cardiovascular Diseases
- Coronary Artery Disease
- Diabetes Complications
- Diabetes Mellitus
- Drug Toxicity
- Edema
- Metabolic Syndrome X
- Neoplasms
- Osteoporosis