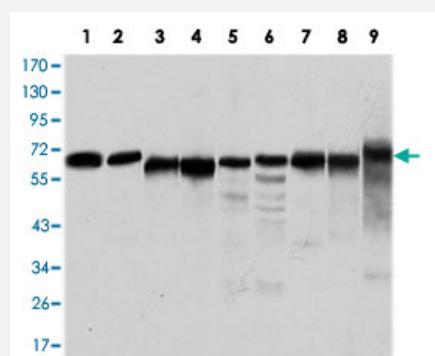


PRKAA1 monoclonal antibody, clone 2B7

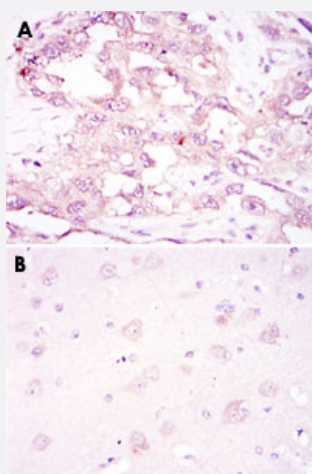
Catalog # MAB10302 Size 100 uL

Applications



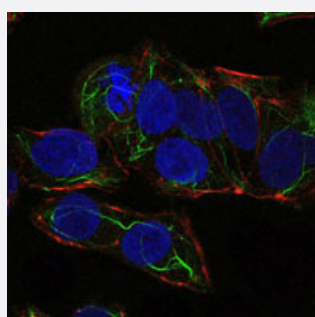
Western Blot (Cell lysate)

Western blot analysis using PRKAA1 monoclonal antibody, clone 2B7 (Cat # MAB10302) against Jurkat (1), HeLa (2), HepG2 (3), MCF-7 (4), COS-7 (5), NIH/3T3 (6), K-562 (7), HEK293 (8), and PC-12 (9) cell lysate.



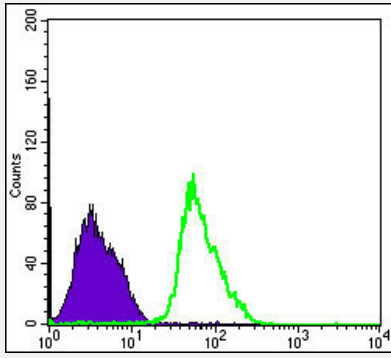
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human ovarian cancer (A) and brain tissue (B) using PRKAA1 monoclonal antibody, clone 2B7 (Cat # MAB10302) with DAB staining.



Immunofluorescence

Immunofluorescence analysis of NTERA-2 cells using PRKAA1 monoclonal antibody, clone 2B7 (Cat # MAB10302) (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow Cytometry

Flow cytometric analysis of PC-2 cells using PRKAA1 monoclonal antibody, clone 2B7 (Cat # MAB10302) (green) and negative control (purple).

Specification

Product Description	Mouse monoclonal antibody raised against recombinant PRKAA1.
Immunogen	Recombinant protein corresponding to human PRKAA1.
Host	Mouse
Theoretical MW (kDa)	64
Reactivity	Human, Mouse, Rat
Form	Liquid
Isotype	IgG1
Recommend Usage	ELISA (1:10000) Western Blot (1:500-1:2000) Immunohistochemistry (1:200-1:1000) Immunofluorescence (1:200-1:1000) Flow cytometry (1:200-1:400) The optimal working dilution should be determined by the end user.
Storage Buffer	In ascites (0.03% sodium azide)
Storage Instruction	Store at 4°C. 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 should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

Western blot analysis using PRKAA1 monoclonal antibody, clone 2B7 (Cat # MAB10302) against Jurkat (1), HeLa (2), HepG2 (3), MCF-7 (4), COS-7 (5), NIH/3T3 (6), K-562 (7), HEK293 (8), and PC-12 (9) cell lysate.

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Immunofluorescence analysis of NTERA-2 cells using PRKAA1 monoclonal antibody, clone 2B7 (Cat # MAB10302) (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

- Enzyme-linked Immunoabsorbent Assay

- Flow Cytometry

Flow cytometric analysis of PC-2 cells using PRKAA1 monoclonal antibody, clone 2B7 (Cat # MAB10302) (green) and negative control (purple).

Gene Info — PRKAA1

Entrez GeneID [5562](#)

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

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](#)