

Product Name: PRKAA1 Mouse Monoclonal Antibody
Catalog #: AMM80955



Summary

Production Name	PRKAA1 Mouse Monoclonal Antibody
Description	Mouse Monoclonal Antibody
Host	Mouse
Application	WB,IHC,ICC,FC,ELISA
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Purified antibody in PBS with 0.05% sodium azide.
Purification	Affinity Purification

Immunogen

Gene Name	PRKAA1
Alternative Names	AMPK; AMPK α 1; MGC33776; MGC57364; PRKAA1
Gene ID	5562.0
SwissProt ID	Q13131.Purified recombinant fragment of human PRKAA1 expressed in E. Coli.

Application

Dilution Ratio	WB:1:500-1:2000,IHC:1:200-1:1000,ICC:1:200-1:1000,FC:1:200-1:400,ELISA:1:10000
Molecular Weight	64kDa

Background

The protein belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein

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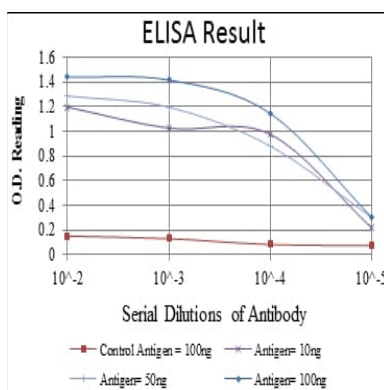


kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed.

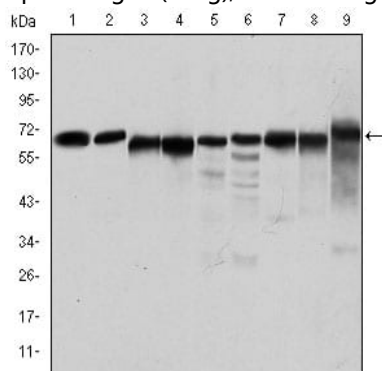
Research Area

Autophagy, Wnt signaling pathway, PI3K-Akt signaling pathway

Image Data

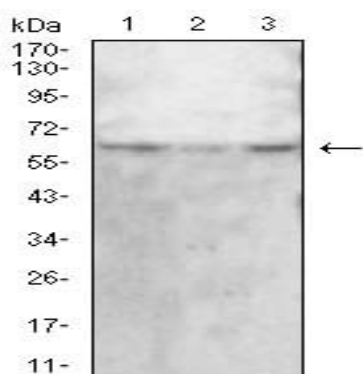


Red: Control Antigen (100ng); Purple: Antigen (10ng); Green: Antigen (50ng); Blue: Antigen (100ng);

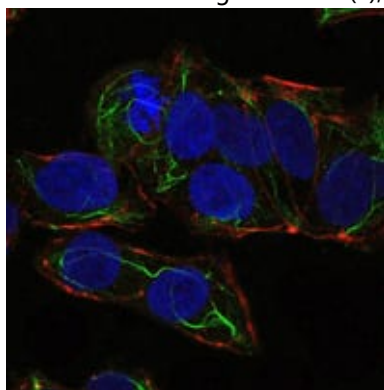


Western blot analysis using PRKAA1 mouse mAb against Jurkat (1), HeLa (2), HepG2 (3), MCF-7 (4), Cos7 (5), NIH/3T3 (6), K562 (7), HEK293 (8), and PC-12 (9) cell lysate.

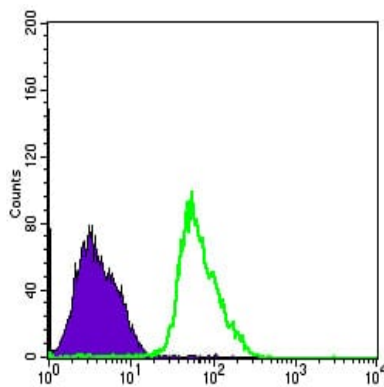
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Western blot analysis using PRKAA1 mouse mAb against COS7(1),C2C12(2),NIH/3T3(3) cell lysate.

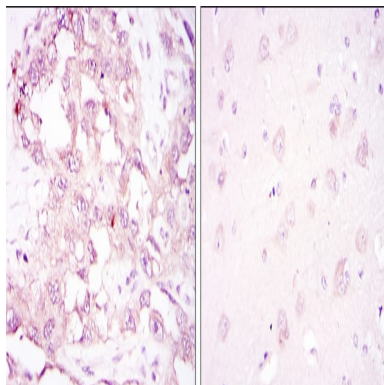


Immunofluorescence analysis of NTERA-2 cells using PRKAA1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of PC-2 cells using PRKAA1 mouse mAb (green) and negative control (purple).

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Immunohistochemical analysis of paraffin-embedded human ovarian cancer (left) and brain tissues (right) using PRKAA1 mouse mAb with DAB staining.

Note

For research use only.