

Product Name: PRKAA2 Mouse Monoclonal Antibody
Catalog #: AMM81832



Summary

Production Name	PRKAA2 Mouse Monoclonal Antibody
Description	Mouse Monoclonal Antibody
Host	Mouse
Application	WB,IHC,ICC,FC,ELISA
Reactivity	Human,Mouse,Rat,Monkey,Rabbit

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	PRKAA2
Alternative Names	AMPK; AMPK2; PRKAA; AMPKa2
Gene ID	5563.0
SwissProt ID	P54646.Purified recombinant fragment of human PRKAA2 (AA: 453-552) expressed in E. Coli.

Application

Dilution Ratio	WB:1:500-1:2000,IHC:1:100-1:500,ICC:1:50-1:500,FC:1:200-1:400,ELISA:1:10000
Molecular Weight	62.3kDa

Background

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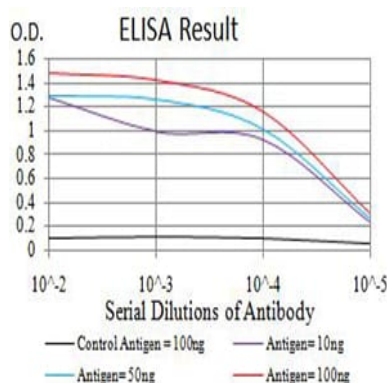


The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response 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.

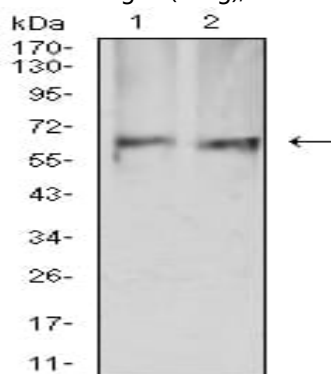
Research Area

Autophagy, Wnt signaling pathway, PI3K-Akt signaling pathway

Image Data

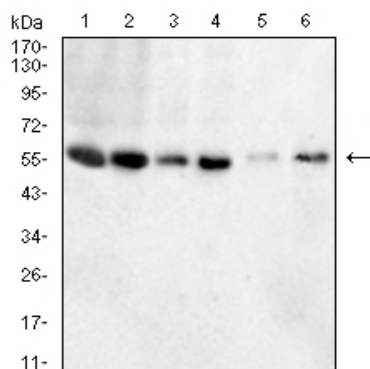


Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

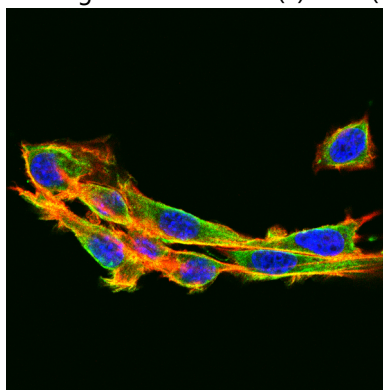


Western blot analysis using PRKAA2 mouse mAb against HEK293 (1) and COS7 (2) cell lysate.

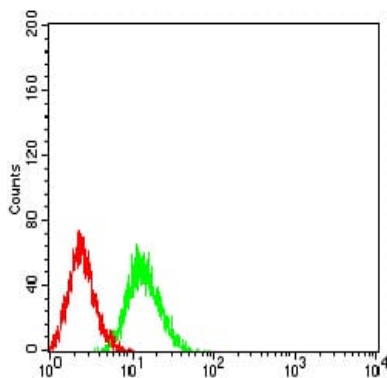
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Western blot analysis using PRKAA2 mouse mAb against Mouse liver(1)PC-12(2)NIH/3T3(3)NRK(4)C2C12(5)C6(6)cell lysate.

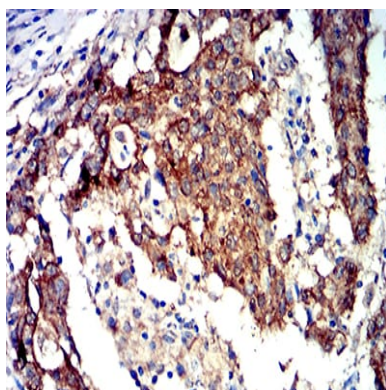


Immunofluorescence analysis of NIH/3T3 cells using PRKAA2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin.

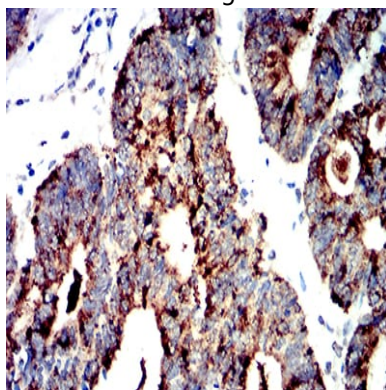


Flow cytometric analysis of Jurkat cells using PRKAA2 mouse mAb (green) and negative control (red).

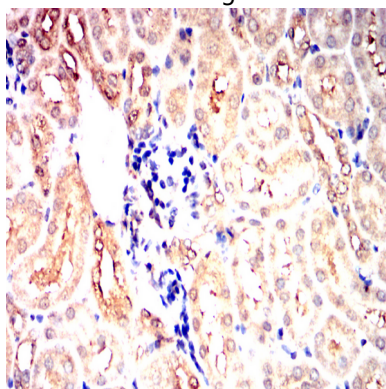
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Immunohistochemical analysis of paraffin-embedded human stomach cancer tissues using PRKAA2 mouse mAb with DAB staining.

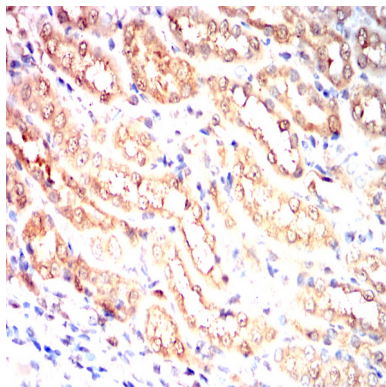


Immunohistochemical analysis of paraffin-embedded human rectum cancer tissues using PRKAA2 mouse mAb with DAB staining.



Immunohistochemical analysis of paraffin-embedded Mouse kidney using PRKAA2 mouse mAb with DAB staining.

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Immunohistochemical analysis of paraffin-embedded Rat kidney using PRKAA2 mouse mAb with DAB staining.

Note

For research use only.