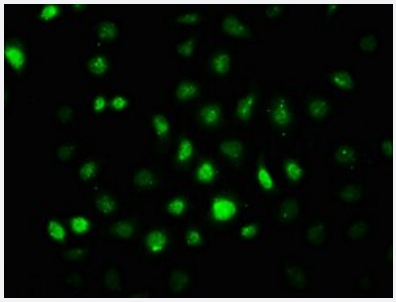
RecomAb™

PRKAA2 (phospho Thr172) recombinant monoclonal antibody, clone 4F4

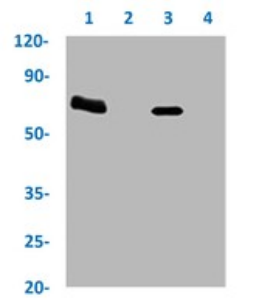
Catalog # RAB04245 Size 100 uL

Applications



Immunofluorescence

Immunofluorescent staining of A549 cells with PRKAA2 (phospho Thr172) recombinant monoclonal antibody, clone 4F4 (Cat # RAB04245) (diluated at 1:100). The secondary antibody was Alexa Fluor 488-congugated goat anti-rabbit IgG (green). Counter-stain DAPI was used (blue).



Western Blot

Western blot analysis of Lane 1: 293 whole cell lysate (treated with Calyculin A 50 nM/60 mins), Lane 2: 293 whole cell lysate (not treated), Lane 3: A549 whole cell lysate (treated with EGF 100 ng/mL/20 mins) and Lane 4: A549 whole cell lysate (not treated) with PRKAA2 (phospho Thr172) recombinant monoclonal antibody, clone 4F4 (Cat # RAB04245).

Specification

Product Description	Rabbit recombinant monoclonal antibody raised against human PRKAA2.
Antibody Species	Rabbit
Immunogen	Original antibody is raised against a synthetic phosphopeptide corresponding to residues surroundin g Thr172 of human PRKAA2.
Theoretical MW (kDa)	Calculated MW: 62 kD
Reactivity	Human

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Form	Liquid
Preparation Method	Mammalian cell (HEK293) expression system
Purification	Affinity chromatography
Isotype	IgG
Recommend Usage	ELISA Immunofluorescence (1:20-1:200) Western Blot (1:500-1:5000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH7.4 (150mM NaCl, 50% glycerol and 0.02% sodium azide)
Storage Instruction	Store at -20 °C or -80 °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

- Immunofluorescence

  Immunofluorescent staining of A549 cells with PRKAA2 (phospho Thr172) recombinant monoclonal antibody, clone 4F4 (Cat # RAB04245) (diluated at 1:100). The secondary antibody was Alexa Fluor 488-congugated goat anti-rabbit IgG (green). Counter-stain DAPI was used (blue).

- Enzyme-linked Immunoabsorbent Assay

- Western Blot

  Western blot analysis of Lane 1: 293 whole cell lysate (treated with Calyculin A 50 nM/60 mins), Lane 2: 293 whole cell lysate (not treated), Lane 3: A549 whole cell lysate (treated with EGF 100 ng/mL/20 mins) and Lane 4: A549 whole cell lysate (not treated) with PRKAA2 (phospho Thr172) recombinant monoclonal antibody, clone 4F4 (Cat # RAB04245).

Gene Info — PRKAA2

Entrez GeneID	5563
Protein Accession#	P54646
Gene Name	PRKAA2
Gene Alias	AMPK, AMPK2, PRKAA

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Gene Description	protein kinase, AMP-activated, alpha 2 catalytic subunit
Omim ID	600497
Gene Ontology	Hyperlink
Gene Summary	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. [provided by RefSeq
Other Designations	5'-AMP-activated protein kinase, catalytic alpha-2 chain|AMP-activated protein kinase alpha 2 catalytic subunit|AMPK-alpha-2 chain|OTTHUMP00000009993

Pathway

- Adipocytokine signaling pathway
- Hypertrophic cardiomyopathy (HCM)
- Insulin signaling pathway
- mTOR signaling pathway
- Regulation of autophagy

Disease

- Atherosclerosis
- Calcinosis
- Cardiovascular Diseases
- Coronary Artery Disease
- Diabetes Mellitus
- Drug Toxicity
- Edema

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- Genetic Predisposition to Disease
- Hypercholesterolemia
- Insulin Resistance

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