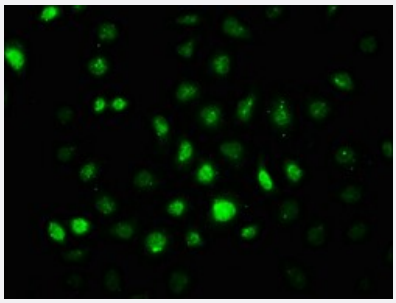
RecomAb™ Sm Size

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

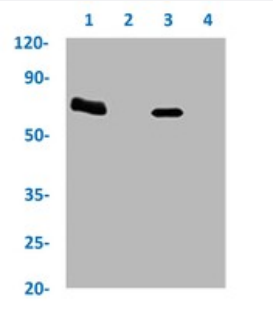
Catalog # RAB08060 Size 50 uL

Applications



Immunofluorescence

Immunofluorescent staining of A549 cells with PRKAA2 (phospho Thr172) recombinant monoclonal antibody (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.

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 (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.

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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