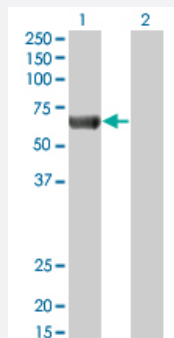


PRKAA2 monoclonal antibody (M02), clone 1G8

Catalog # H00005563-M02

Size 100 ug

Applications

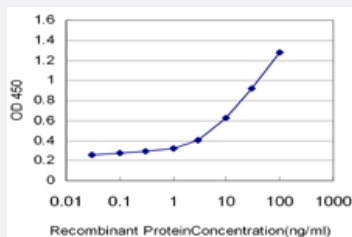


Western Blot (Transfected lysate)

Western Blot analysis of PRKAA2 expression in transfected 293T cell line by PRKAA2 monoclonal antibody (M02), clone 1G8.

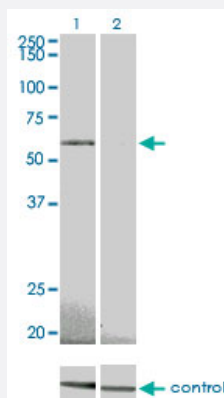
Lane 1: PRKAA2 transfected lysate (62.3 kDa).

Lane 2: Non-transfected lysate.



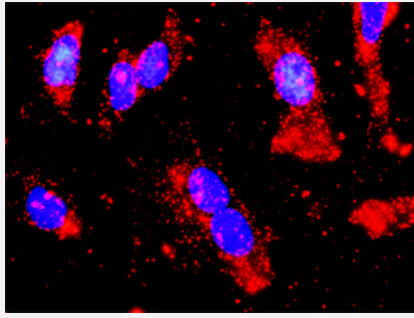
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged PRKAA2 is approximately 0.03 ng/ml as a capture antibody.



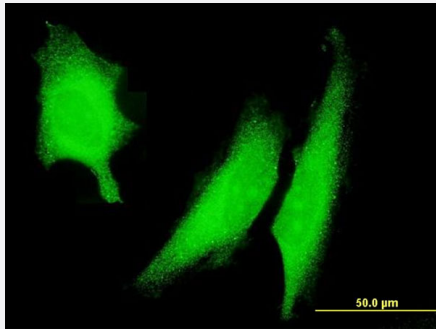
RNAi Knockdown (Antibody validated)

Western blot analysis of PRKAA2 over-expressed 293 cell line, cotransfected with PRKAA2 Validated Chimera RNAi (Cat # H00005563-R01V) (Lane 2) or non-transfected control (Lane 1). Blot probed with PRKAA2 monoclonal antibody (M02) clone 1G8 (Cat # H00005563-M02). GAPDH (36.1 kDa) used as specificity and loading control.



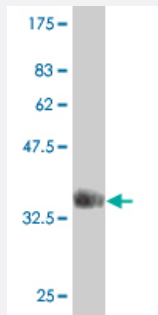
In situ Proximity Ligation Assay (Cell)

Proximity Ligation Analysis of protein-protein interactions between STK11 and PRKAA2. HeLa cells were stained with anti-STK11 rabbit purified polyclonal 1:1200 and anti-PRKAA2 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



Immunofluorescence

Immunofluorescence of monoclonal antibody to PRKAA2 on HeLa cell .
[antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (36.74 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant PRKAA2.
Immunogen	PRKAA2 (NP_006243, 453 a.a. ~ 552 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MSLQLYLVDNRSYLLDFKSIDDEVVEQRSGSSTPQRSCSAAGLHRPRSSFDDSTTAESHSLSGSLT GSLTGSTLSSVSPRLGSHTMDFFEMCASLITTLAR
Host	Mouse
Reactivity	Human
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .

Storage Buffer

In 1x PBS, pH 7.4

Storage Instruction

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Transfected lysate)

Western Blot analysis of PRKAA2 expression in transfected 293T cell line by PRKAA2 monoclonal antibody (M02), clone 1G8.

Lane 1: PRKAA2 transfected lysate(62.3 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged PRKAA2 is approximately 0.03ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- RNAi Knockdown (Antibody validated)

Western blot analysis of PRKAA2 over-expressed 293 cell line, cotransfected with PRKAA2 Validated Chimera RNAi (Cat # H00005563-R01V) (Lane 2) or non-transfected control (Lane 1). Blot probed with PRKAA2 monoclonal antibody (M02) clone 1G8 (Cat # H00005563-M02). GAPDH (36.1 kDa) used as specificity and loading control.

[Protocol Download](#)

- In situ* Proximity Ligation Assay (Cell)

Proximity Ligation Analysis of protein-protein interactions between STK11 and PRKAA2. HeLa cells were stained with anti-STK11 rabbit purified polyclonal 1:1200 and anti-PRKAA2 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

- Immunofluorescence

Immunofluorescence of monoclonal antibody to PRKAA2 on HeLa cell . [antibody concentration 10 ug/ml]

Gene Info — PRKAA2

Entrez GeneID	5563
GeneBank Accession#	NM_006252
Protein Accession#	NP_006243
Gene Name	PRKAA2
Gene Alias	AMPK, AMPK2, PRKAA
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 (AMP K). 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 (HMG CR), 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](#)
- [Genetic Predisposition to Disease](#)
- [Hypercholesterolemia](#)
- [Insulin Resistance](#)