

**PRKAB1 Antibody (monoclonal) (M02)****Mouse monoclonal antibody raised against a full length recombinant PRKAB1.****Catalog # AT3428a****Specification**

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**PRKAB1 Antibody (monoclonal) (M02) - Product Information**

Application	WB, IF, E
Primary Accession	<a href="#">Q9Y478</a>
Other Accession	<a href="#">BC001007</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG2a Kappa
Calculated MW	30382

**PRKAB1 Antibody (monoclonal) (M02) - Additional Information****Gene ID** 5564**Other Names**

5'-AMP-activated protein kinase subunit beta-1, AMPK subunit beta-1, AMPKb, PRKAB1, AMPK

**Target/Specificity**

PRKAB1 (AAH01007, 1 a.a. ~ 270 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

IF~~1:50~200

E~~N/A

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

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

**Precautions**

PRKAB1 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures.

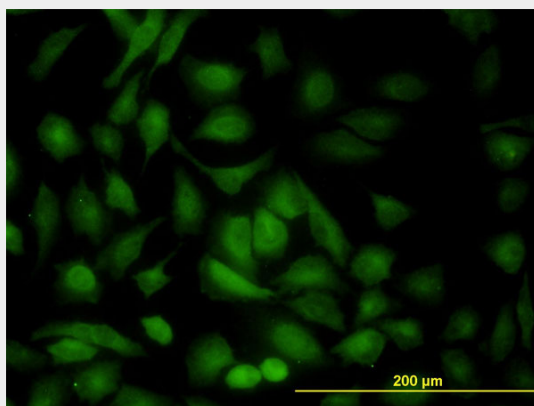
**PRKAB1 Antibody (monoclonal) (M02) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

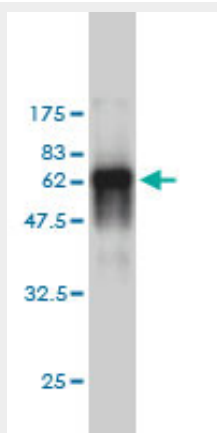
- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

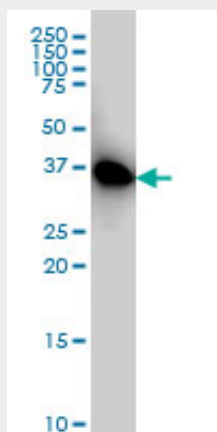
### PRKAB1 Antibody (monoclonal) (M02) - Images



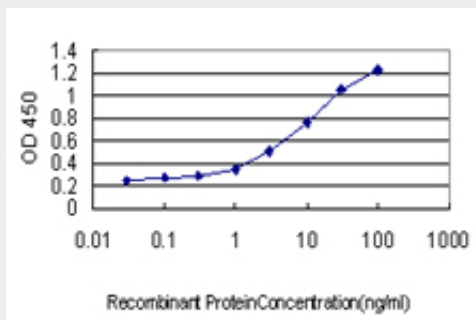
Immunofluorescence of monoclonal antibody to PRKAB1 on HeLa cell. [antibody concentration 10 ug/ml]



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (55.44 KDa) .



PRKAB1 monoclonal antibody (M02), clone 2C3 Western Blot analysis of PRKAB1 expression in HeLa (Cat # AT3428a)



Detection limit for recombinant GST tagged PRKAB1 is approximately 0.1ng/ml as a capture antibody.

### **PRKAB1 Antibody (monoclonal) (M02) - Background**

The protein encoded by this gene is a regulatory 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. This subunit may be a positive regulator of AMPK activity. The myristoylation and phosphorylation of this subunit have been shown to affect the enzyme activity and cellular localization of AMPK. This subunit may also serve as an adaptor molecule mediating the association of the AMPK complex.

### **PRKAB1 Antibody (monoclonal) (M02) - References**

COMMON VARIANTS IN 40 GENES ASSESSED FOR DIABETES INCIDENCE AND RESPONSE TO METFORMIN AND LIFESTYLE INTERVENTIONS IN THE DIABETES PREVENTION PROGRAM. Jablonski KA, et al. Diabetes, 2010 Aug 3. PMID 20682687. Variation at the NFATC2 Locus Increases the Risk of Thiazolidinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086. Enhanced hepatitis C virus genome replication and lipid accumulation mediated by inhibition of AMP-activated protein kinase. Mankouri J, et al. Proc Natl Acad Sci U S A, 2010 Jun 22. PMID 20534540. Regulation of Na<sup>+</sup>-coupled glucose carrier SGLT1 by AMP-activated protein kinase. Sopjani M, et al. Mol Membr Biol, 2010 Apr. PMID 20334581. Dysregulation of lipolysis and lipid metabolism in visceral and subcutaneous adipocytes by high-fat diet: role of ATGL, HSL, and AMPK. Gaidhu MP, et al. Am J Physiol Cell Physiol, 2010 Apr. PMID 20107043.