

## **PRKAA1 Antibody (monoclonal) (M03)**

Mouse monoclonal antibody raised against a partial recombinant PRKAA1.

Catalog # AT3426a

### **Specification**

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#### **PRKAA1 Antibody (monoclonal) (M03) - Product Information**

Application	IF, WB, IHC
Primary Accession	<a href="#">O13131</a>
Other Accession	<a href="#">NM_006251</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG2a Kappa
Calculated MW	64009

#### **PRKAA1 Antibody (monoclonal) (M03) - Additional Information**

**Gene ID** 5562

##### **Other Names**

5'-AMP-activated protein kinase catalytic subunit alpha-1, AMPK subunit alpha-1, Acetyl-CoA carboxylase kinase, ACACA kinase, Hydroxymethylglutaryl-CoA reductase kinase, HMGCR kinase, Tau-protein kinase PRKAA1, PRKAA1, AMPK1

##### **Target/Specificity**

PRKAA1 (AAH12622, 451 a.a. ~ 550 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

##### **Dilution**

WB~~1:500~1000

##### **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**

PRKAA1 Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

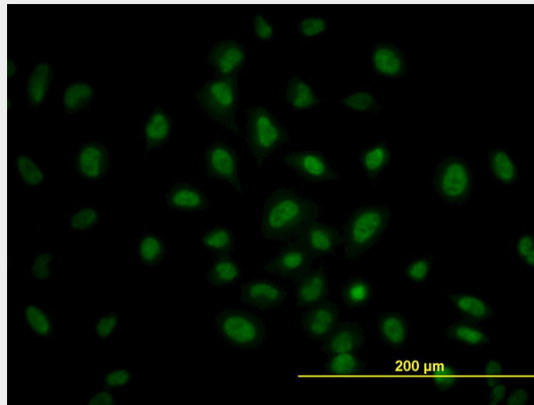
#### **PRKAA1 Antibody (monoclonal) (M03) - Protocols**

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

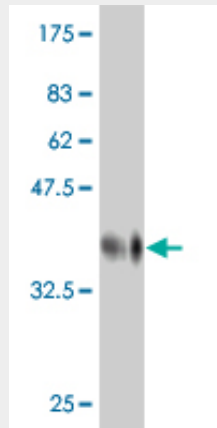
- [Western Blot](#)
- [Blocking Peptides](#)

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

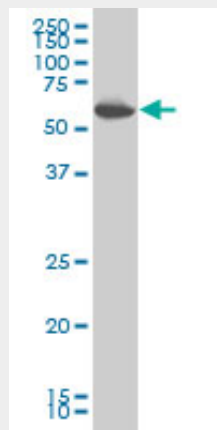
### PRKAA1 Antibody (monoclonal) (M03) - Images



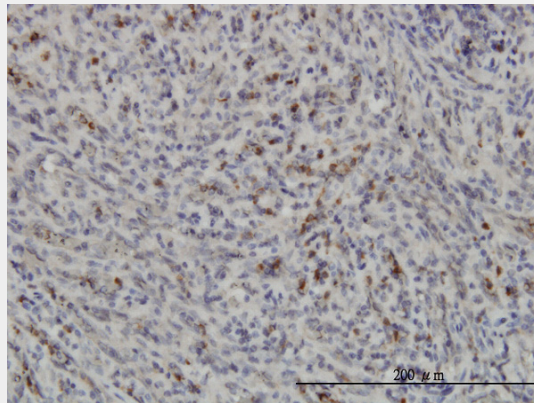
Immunofluorescence of monoclonal antibody to PRKAA1 on HeLa cell. [antibody concentration 10 ug/ml]



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .



PRKAA1 monoclonal antibody (M03), clone 4D8 Western Blot analysis of PRKAA1 expression in K-562 ( (Cat # AT3426a )



Immunoperoxidase of monoclonal antibody to PRKAA1 on formalin-fixed paraffin-embedded human spleen. [antibody concentration 3 ug/ml]

### **PRKAA1 Antibody (monoclonal) (M03) - Background**

The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed.

### **PRKAA1 Antibody (monoclonal) (M03) - References**

Association Study of Energy Homeostasis Genes and Antipsychotic-Induced Weight Gain in Patients with Schizophrenia. Jassim G, et al. *Pharmacopsychiatry*, 2010 Sep 6. PMID 20821366.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 Thiazolinedione-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.Genetic variation in a metabolic signaling pathway and colon and rectal cancer risk: mTOR, PTEN, STK11, RPKAA1, PRKAG2, TSC1, TSC2, PI3K and Akt1. Slattery ML, et al. *Carcinogenesis*, 2010 Sep. PMID 20622004.Physiogenomic analysis of statin-treated patients: domain-specific counter effects within the ACACB gene on low-density lipoprotein cholesterol? Rua?o G, et al. *Pharmacogenomics*, 2010 Jul. PMID 20602615.