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PRKAB1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant PRKAB1.
Catalog # AT3427a

Product Information

Application	WB, E
Primary Accession	Q9Y478
Other Accession	BC001007
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 kappa
Clone Names	3H12-1A10
Calculated MW	30382

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 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) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

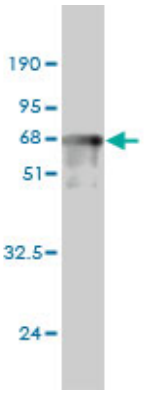
Background

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.

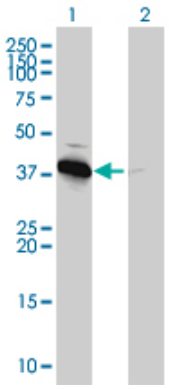
References

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 Thiazolinedinedione-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+-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.

Images

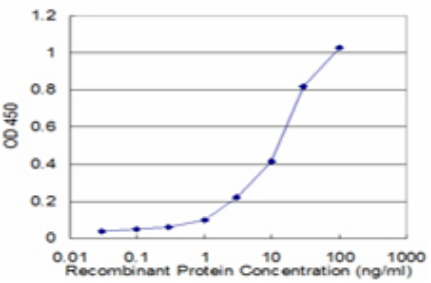


Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (55.44 KDa) .



Western Blot analysis of PRKAB1 expression in transfected 293T cell line by PRKAB1 monoclonal antibody (M01), clone 3H12-1A10.

Lane 1: PRKAB1 transfected lysate(31.05 KDa).
Lane 2: Non-transfected lysate.



Detection limit for recombinant GST tagged PRKAB1 is approximately 1ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.