

AMPK $\beta$  1 mouse mAb

<b>Catalog No :</b>	YM1363
<b>Reactivity :</b>	Human;Mouse;Rat;Monkey
<b>Applications :</b>	WB;ICC;IP;IHC
<b>Target :</b>	AMPK $\beta$ 1
<b>Fields :</b>	>>FoxO signaling pathway;>>AMPK signaling pathway;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Apelin signaling pathway;>>Tight junction;>>Circadian rhythm;>>Thermogenesis;>>Insulin signaling pathway;>>Adipocytokine signaling pathway;>>Oxytocin signaling pathway;>>Glucagon signaling pathway;>>Insulin resistance;>>Non-alcoholic fatty liver disease;>>Alcoholic liver disease;>>Hypertrophic cardiomyopathy
<b>Gene Name :</b>	prkab1
<b>Human Gene Id :</b>	5564
<b>Human Swiss Prot No :</b>	Q9Y478
<b>Mouse Swiss Prot No :</b>	Q9R078
<b>Immunogen :</b>	Purified recombinant human AMPK beta 1 protein fragments expressed in E.coli.
<b>Specificity :</b>	This antibody detects endogenous levels of AMPK beta 1 and does not cross-react with related proteins.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Monoclonal, Mouse
<b>Dilution :</b>	wb 1:1000 icc 1:100
<b>Purification :</b>	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml

**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

**Observed Band :** 38kD

**Cell Pathway :** Insulin\_Receptor;Adipocytokine;Hypertrophic cardiomyopathy (HCM);

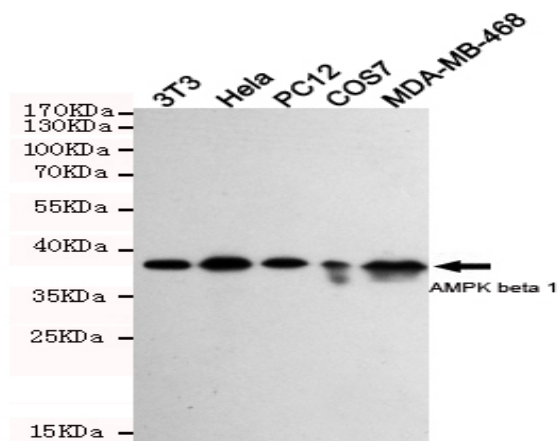
**Background :** The protein encoded by this gene is a regulatory subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. 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. [provided]

**Function :** function:AMPK is responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. Also regulates cholesterol synthesis via phosphorylation and inactivation of hydroxymethylglutaryl-CoA reductase and hormone-sensitive lipase. This is a regulatory subunit, may be a positive regulator of AMPK activity. It may also serve as an adaptor molecule for the catalytic alpha-subunit.,PTM:Phosphorylated.,similarity:Belongs to the 5'-AMP-activated protein kinase beta subunit family.,subunit:Heterotrimer of an alpha catalytic subunit, a beta and a gamma non-catalytic regulatory subunits. Interacts with FNIP1 and FNIP2.,

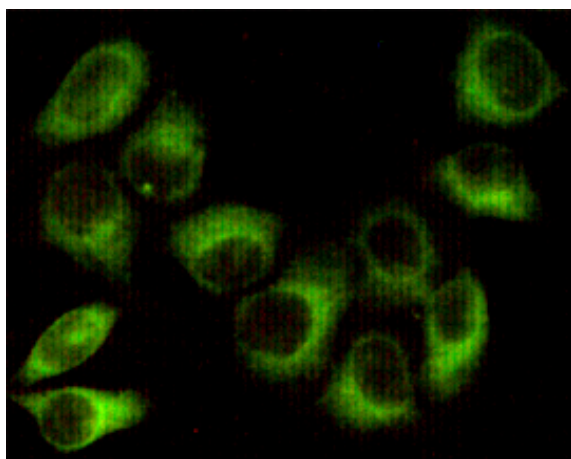
**Subcellular Location :** nucleus,nucleoplasm,cytosol,nucleotide-activated protein kinase complex,

**Expression :** Brain,Lung,Muscle,Platelet,

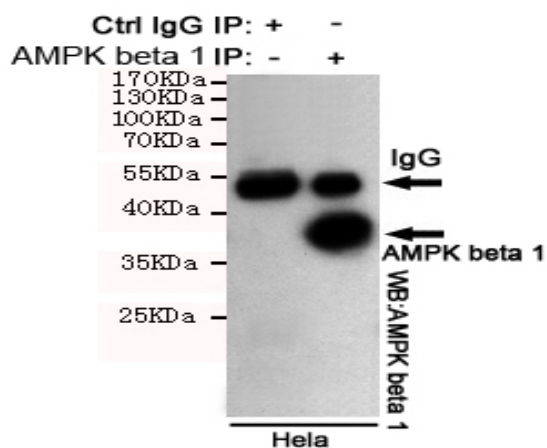
## Products Images



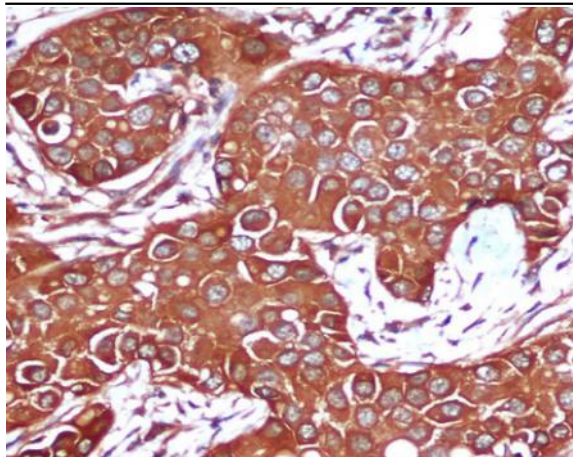
Western blot detection of AMPK beta 1 in 3T3, HeLa, PC-12, COS7 and MDA-MB-468 cell lysates using AMPK beta 1 mouse mAb (1:1000 diluted). Predicted band size: 38 kDa. Observed band size: 38 kDa. Exposure time: 5 min.



Immunocytochemistry staining of HeLa cells fixed with 1% Paraformaldehyde and using AMPK beta 1 mouse mAb (dilution 1:100).



Immunoprecipitation analysis of HeLa cell lysates using AMPK beta 1 mouse mAb.



Immunohistochemical analysis of paraffin-embedded Breast cancer using AMPK beta 1 mouse mAb (1/200 dilution).Antigen retrieval was performed by pressure cooking in citrate buffer (pH 6.0).