

## AMPKβ1 Polyclonal Antibody

Catalog No :	YT0217
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	ΑΜΡΚβ1
Fields :	>>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
Gene Name :	PRKAB1
Protein Name :	5'-AMP-activated protein kinase subunit beta-1
Human Gene Id :	5564
Human Swiss Prot	Q9Y478
No : Mouse Gene Id :	19079
Mouse Swiss Prot	Q9R078
No : Bat Gene Id :	83803
Rat Swiss Prot No :	P80386
Immunogen :	The antiserum was produced against synthesized peptide derived from human PRKAB1. AA range:10-59
Specificity :	AMPK <sub>β1</sub> Polyclonal Antibody detects endogenous levels of AMPK <sub>β1</sub> protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.



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Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity- chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	34kD
Cell Pathway :	АМРК
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,

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Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.

Western blot analysis of lysates from Raw264.7 cells, treated with TNF 20ng/ml 5', using PRKAB1 Antibody. The lane on the right is blocked with the synthesized peptide.