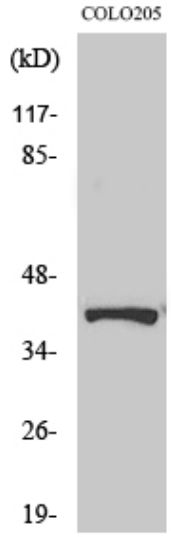
AMPKβ1 (phospho Ser182) Polyclonal Antibody

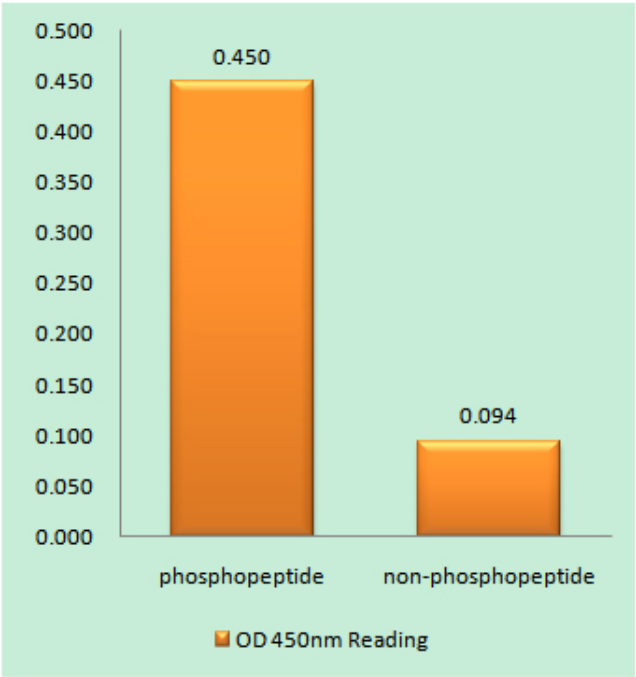
Catalog No	BYab-14297
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	PRKAB1
Protein Name	5'-AMP-activated protein kinase subunit beta-1
Immunogen	The antiserum was produced against synthesized peptide derived from human AMPK beta1 around the phosphorylation site of Ser181. AA range:147-196
Specificity	Phospho-AMPKβ1 (S182) Polyclonal Antibody detects endogenous levels of AMPKβ1 protein only when phosphorylated at S182.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/40000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PRKAB1; AMPK; 5'-AMP-activated protein kinase subunit beta-1; AMPK subunit beta-1; AMPKb
Observed Band	38kD
Cell Pathway	nucleus,nucleoplasm,cytosol,nucleotide-activated protein kinase complex,
Tissue Specificity	Brain,Lung,Muscle,Platelet,
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.,

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
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

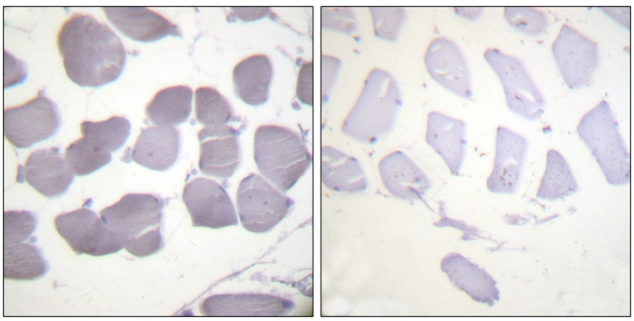
Products Images



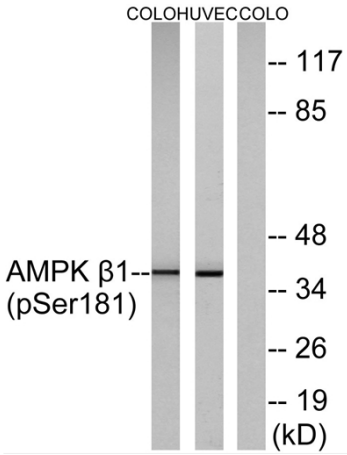
Western Blot analysis of various cells using Phospho-AMPKβ1 (S182) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using AMPK beta1 (Phospho-Ser181) Antibody



Immunohistochemistry analysis of paraffin-embedded human skeletal muscle, using AMPK beta1 (Phospho-Ser181) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COLO205 cells and HUVEC cells, using AMPK beta1 (Phospho-Ser181) Antibody. The lane on the right is blocked with the phospho peptide.