

**AMPK $\beta$ 1 (phospho Ser182) Polyclonal Antibody**

|                              |  |
|------------------------------|--|
| <b>Catalog No :</b>          | YP0011   |
| <b>Reactivity :</b>          | Human;Mouse;Rat  |
| <b>Applications :</b>        | WB;IHC;IF;ELISA  |
| <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>Protein Name :</b>        | 5'-AMP-activated protein kinase subunit beta-1   |
| <b>Human Gene Id :</b>       | 5564   |
| <b>Human Swiss Prot No :</b> | Q9Y478   |
| <b>Mouse Gene Id :</b>       | 19079  |
| <b>Mouse Swiss Prot No :</b> | Q9R078   |
| <b>Rat Gene Id :</b>         | 83803  |
| <b>Rat Swiss Prot No :</b>   | P80386   |
| <b>Immunogen :</b>           | The antiserum was produced against synthesized peptide derived from human AMPK beta1 around the phosphorylation site of Ser181. AA range:147-196   |
| <b>Specificity :</b>         | Phospho-AMPK $\beta$ 1 (S182) Polyclonal Antibody detects endogenous levels of AMPK $\beta$ 1 protein only when phosphorylated at S182.  |
| <b>Formulation :</b>         | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.  |

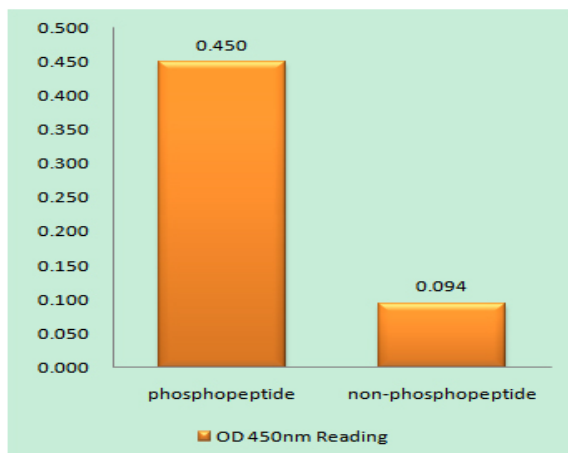
|                               |  |
|-------------------------------|--|
| <b>Source :</b>               | Polyclonal, Rabbit,IgG   |
| <b>Dilution :</b>             | WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000.. IF 1:50-200   |
| <b>Purification :</b>         | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.  |
| <b>Concentration :</b>        | 1 mg/ml  |
| <b>Storage Stability :</b>    | -15°C to -25°C/1 year(Do not lower than -25°C)   |
| <b>Observed Band :</b>        | 38kD   |
| <b>Cell Pathway :</b>         | AMPK   |
| <b>Background :</b>           | <p>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</p> |
| <b>Function :</b>             | <p>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.,</p>  |
| <b>Subcellular Location :</b> | nucleus,nucleoplasm,cytosol,nucleotide-activated protein kinase complex,   |
| <b>Expression :</b>           | Brain,Lung,Muscle,Platelet,  |
| <b>Sort :</b>                 | 1986   |
| <b>No2 :</b>                  | 4186S  |

|                        |         |
|------------------------|---------|
| <b>No4 :</b>           | 1       |
| <b>Host :</b>          | Rabbit  |
| <b>Modifications :</b> | Phospho |

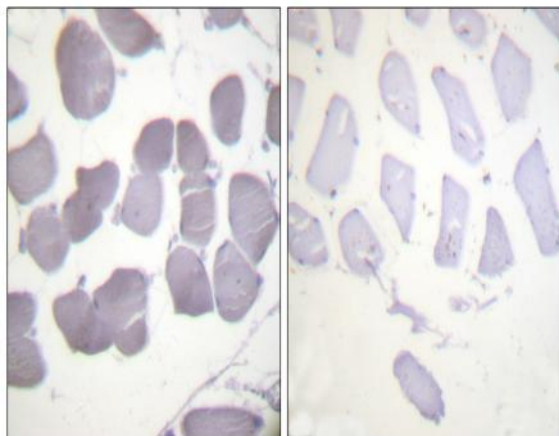
## Products Images



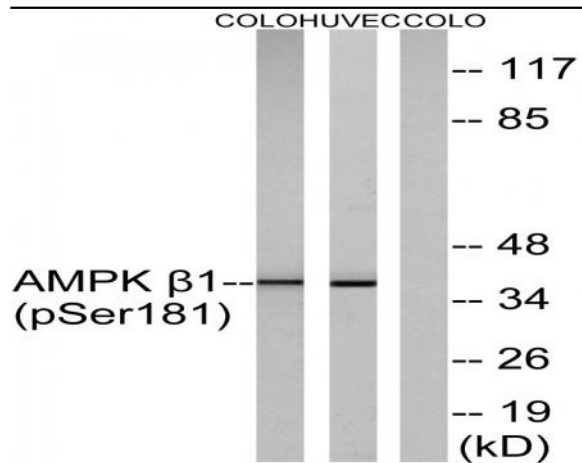
Western Blot analysis of various cells using Phospho-AMPK $\beta$ 1 (S182) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



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.