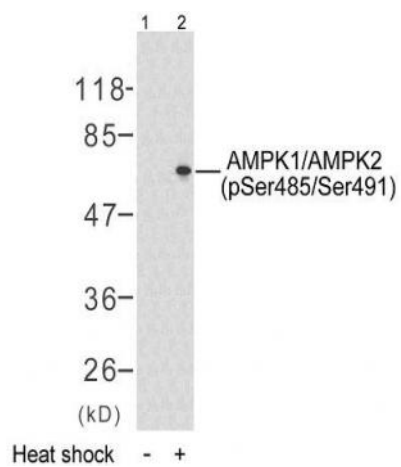


**AMPK $\alpha$ 1 (Phospho Ser485) rabbit pAb**

|                              |  |
|------------------------------|--|
| <b>Catalog No :</b>          | YP1259   |
| <b>Reactivity :</b>          | Human;Mouse;Rat  |
| <b>Applications :</b>        | WB   |
| <b>Target :</b>              | AMPK $\alpha$ 1  |
| <b>Fields :</b>              | >>FoxO signaling pathway;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt 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;>>Fluid shear stress and atherosclerosis |
| <b>Gene Name :</b>           | PRKAA1 AMPK1   |
| <b>Protein Name :</b>        | AMPK $\alpha$ 1 (Ser485)   |
| <b>Human Gene Id :</b>       | 5562   |
| <b>Human Swiss Prot No :</b> | Q13131   |
| <b>Mouse Gene Id :</b>       | 105787   |
| <b>Mouse Swiss Prot No :</b> | Q5EG47   |
| <b>Rat Gene Id :</b>         | 65248  |
| <b>Rat Swiss Prot No :</b>   | P54645   |
| <b>Immunogen :</b>           | Synthesized phospho peptide around human AMPK $\alpha$ 1 (Ser485)  |
| <b>Specificity :</b>         | This antibody detects endogenous levels of Human Mouse Rat AMPK $\alpha$ 1 (phospho-Ser485)  |

|                               |   |
|-------------------------------|---|
| <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 1:1000-2000  |
| <b>Purification :</b>         | The antibody was affinity-purified from rabbit serum by affinity-chromatography using 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>        | 65kD  |
| <b>Cell Pathway :</b>         | Insulin Receptor; mTOR; AMPK  |
| <b>Background :</b>           | <p>The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008],</p>  |
| <b>Function :</b>             | <p>catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Binding of AMP results in allosteric activation, inducing phosphorylation on Thr-174 by STK11 in complex with STE20-related adapter-alpha (STRAD alpha) pseudo kinase and CAB39. Also activated by phosphorylation by CAMKK2 triggered by a rise in intracellular calcium ions, without detectable changes in the AMP/ATP ratio.,function:Responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. It also regulates cholesterol synthesis via phosphorylation and inactivation of hormone-sensitive lipase and hydroxymethylglutaryl-CoA reductase. Appears to act as a metabolic stress-sensing protein kinase switching off biosynthetic pathways when cellular ATP levels are depleted and when 5'-AMP rises in response to fuel limitation and/or hypoxia. This is a catalytic s</p> |
| <b>Subcellular Location :</b> | Cytoplasm . Nucleus . In response to stress, recruited by p53/TP53 to specific promoters. .   |
| <b>Expression :</b>           | Brain,Intestine,Liver,Mammary gland,Platelet,Testis   |

## Products Images



Western blot analysis of lysates from HeLa cells treated with heat shock, using AMPK1 (Phospho-Ser485) Antibody. The lane on the right is blocked with the phospho peptide.