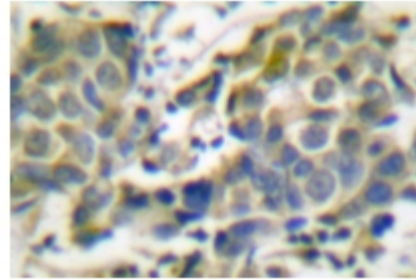


## Polyclonal Antibody to AMPK1 / AMPK2 pThr174/172 - Aff - Purified

<b>Alternate names:</b>	5'-AMP-activated protein kinase catalytic subunit alpha-1, 5'-AMP-activated protein kinase catalytic subunit alpha-2, AMPK alpha-1 chain, AMPK alpha-2 chain, PRKAA1, PRKAA2
<b>Catalog No.:</b>	AP01882PU-N
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	Five-prime-AMP-activated protein kinase, known as AMPK, is a heterotrimeric complex that comprises of a catalytic $\alpha$ subunits, and regulatory $\beta$ and $\gamma$ . AMPK protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. AMPK is activated by high AMP and low ATP via a mechanism involving allosteric regulation, promotion of phosphorylation by an upstream protein kinase known as AMPK kinase (AMPKK), and inhibition of dephosphorylation. Activated AMPK can phosphorylate and regulate in vivo hydroxymethylglutaryl-CoA reductase and acetyl-CoA carboxylase, which are key regulatory enzymes of sterol synthesis and fatty acid synthesis, respectively. The human AMPK $\alpha$ 1 gene maps to chromosome 5p12 and encodes a 548 amino acid protein. The major regulatory site phosphorylated by AMPKK on AMPK $\alpha$ has been identified as Thr 172 within the activation loop between the DFG and APE motifs of the $\alpha$ subunits
<b>Host:</b>	Rabbit
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction (> 95% pure by SDS-PAGE). <b>Purification:</b> Affinity Chromatography using epitope-specific immunogen. <b>Buffer System:</b> Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative.
<b>Applications:</b>	<b>Western Blot:</b> 1/500-1/1000. <b>Immunohistochemistry on paraffin sections:</b> 1/50-1/200. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Molecular Weight:</b>	~ 62 kDa
<b>Specificity:</b>	This antibody detects endogenous levels of AMPK alpha1/2 protein when phosphorylated at Thr174 or Thr172.
<b>Species Reactivity:</b>	<b>Tested:</b> Human. <b>Expected from sequence similarity:</b> Mouse and Rat.
<b>Storage:</b>	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: One year from despatch.

**Pictures:**

**Immunohistochemistry (IHC)** analyzes of p-AMPK $\alpha$ 1/2 (pThr174/172) antibody (Cat.-No.: AP01882PU-N) in paraffin-embedded human breast carcinoma tissue.



**Western blot (WB)** analysis of AMPK $\alpha$ 1/2 (pThr174/172) antibody (Cat.-No.: AP01882PU-N) in extracts from COS7 cells treated with Adriamycin 0.5 ng/ml 24hours .

