

## AMPK $\alpha$ 1 (phospho-S486) polyclonal antibody

Catalog: BCP00206

Host: Rabbit

Reactivity: Human, Mouse, Rat

### Background:

AMPK is a heterotrimeric complex comprising a catalytic  $\alpha$  subunit and regulatory  $\beta$  and  $\gamma$  subunits. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. AMPK is activated by high AMP and low ATP through a mechanism involving allosteric regulation, promotion of phosphorylation by an upstream protein kinase known as AMPK kinase, 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 and AMPK $\alpha$ 2 genes encode 548 amino acid and 552 amino acid proteins, respectively. Human AMPK $\beta$ 1 encodes a 271 amino acid protein and human AMPK $\beta$ 2 encodes a 272 amino acid protein. The human AMPK $\gamma$ 1 gene encodes a 331 amino acid protein. Human AMPK $\gamma$ 2 and AMPK $\gamma$ 3, which are 569 and 492 amino acid proteins, respectively, contain unique N-terminal domains and may participate directly in the binding of AMP within the AMPK complex.

### Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

~ 63 kDa

### Swiss-Prot:

Q13131

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB: 1:500~1:1000

IHC: 1:50~1:200

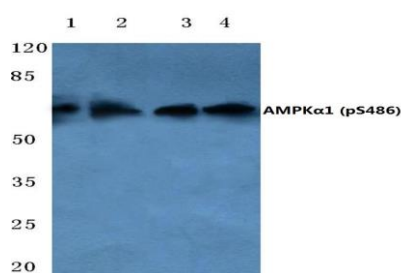
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

### Specificity:

p-AMPK $\alpha$ 1 (S486) polyclonal antibody detects endogenous levels of AMPK $\alpha$ 1 protein only when phosphorylated at Ser486. The antibody does not cross-react with phosphorylated AMPK $\alpha$ 2 or other related proteins.

### DATA:

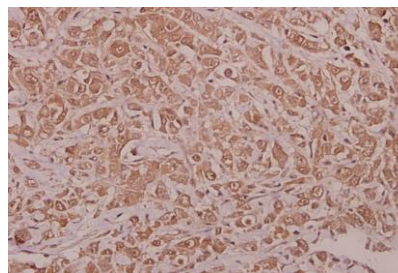


Western blot (WB) analysis of p-AMPK $\alpha$ 1 (S486) polyclonal antibody at 1:500 dilution

Lane1:HEK293T cell lysate treated with UV

Lane2:sp2/0 cell lysate treated with UV

Lane3:PC12 cell lysate treated with UV



Immunohistochemistry (IHC) analyzes of p-AMPK $\alpha$ 1 (S486) pAb in paraffin-embedded human colorectal carcinoma tissue at 1:50.

### Note:

For research use only, not for use in diagnostic procedure.