#### PRODUCT DATA SHEET



# Bioworld Technology CO., Ltd.

# AMPKα1/2 (N180) Peptide

Cat No.: BS5503P

## **Background**

AMPK is a heterotrimeric complex comprising a catalytic α 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 AMPKα1 and AMPKα2 genes encode 548 amino acid and 552 amino acid proteins, respectively. Human AMPKB1 encodes a 271 amino acid protein and human AMPKβ2 encodes a 272 amino acid protein. The human AMPKy1 gene encodes a 331 amino acid protein. Human AMPKy2 and AMPKy3, 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.

## **Swiss-Prot**

Q13131/P54646

#### **Applications**

**Blocking** 

#### **Specificity**

This peptide can be used with studies using BS5503 AMPK $\alpha$ 1/2 (N180) pAb.

# **Purification & Purity**

Synthetic peptide AMPK $\alpha$ 1/2 (N180). (Note: the amino acid sequence is proprietary). The purity is > 98%.

#### **Product**

1 mg/ml in DI water.

#### **Storage & Stability**

Store at  $4\,\mathrm{C}$  short term. Aliquot and store at  $-20\,\mathrm{C}$  long term. Avoid freeze-thaw cycles.

#### **Research Use**

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