

# AMPKα1/2 (D168) polyclonal antibody

Catalog: BS1009

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 AMPKa1 and AMPKa2 genes encode 548 amino acid and 552 amino acid proteins, respectively. Human AMPK<sub>β1</sub> 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.

# **Product:**

1 mg/ml in Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2.

# **Molecular Weight:**

~ 63 kDa

**Swiss-Prot:** 

Q13131/P54646

**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

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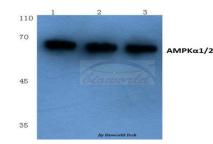
**Storage&Stability:** 

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

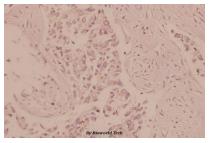
### **Specificity:**

AMPK $\alpha$ 1/2 (D168) polyclonal antibody detects endogenous levels of AMPK $\alpha$ 1 and AMPK $\alpha$ 2 protein.

# **DATA:**



Western blot (WB) analysis of AMPKα1/2 (D168) polyclonal antibody at 1:500 dilution Lane1:Hela cell lysate Lane2:Mouse brain tissue lysate Lane3:Rat brain tissue lysate



Immunohistochemistry (IHC) analyzes of AMPKa1/2 (D168) pAb in

paraffin-embedded human breast carcinoma tissue at 1:100.

# Note:

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

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