

## AMPK $\alpha$ 2, Rabbit pAb

<b>CATALOG #:</b>	3169-100
<b>AMOUNT:</b>	100 $\mu$ g
<b>LOT #:</b>	_____
<b>HOST (ISOTYPE):</b>	Rabbit (Ig)
<b>IMMUNOGEN:</b>	KLH conjugated synthetic peptide selected from the C-terminal region of human AMPK.
<b>SPECIES REACTIVITY:</b>	Human, Mouse

### FORMULATION:

100  $\mu$ g (0.25 mg/ml) purified rabbit Ig polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.

### STORAGE CONDITIONS:

Maintain refrigerated at 2-8°C for up to 6 months or -20°C for long term storage.

### BACKGROUND DESCRIPTION:

AMPK2 alpha2 is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia.

### BACKGROUND REFERENCES:

1. Minokoshi, Y., et al., Nature 428(6982):569-574 (2004).
2. Andersson, U., et al., J. Biol. Chem. 279(13):12005-12008 (2004).
3. Browne, G.J., et al., J. Biol. Chem. 279(13):12220-12231 (2004).
4. Shaw, R.J., et al., Proc. Natl. Acad. Sci. U.S.A. 101(10):3329-3335 (2004).
5. Carling, D., Trends Biochem. Sci. 29(1):18-24 (2004).

### OTHER NAMES:

5'-AMP-activated protein kinase, catalytic subunit alpha-2; AMPK alpha-2 chain

### SPECIFICITY:

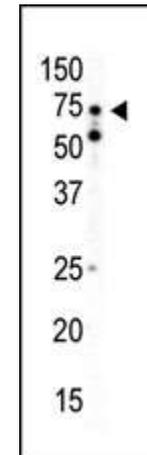
The antibody detects a ~62 kDa band, corresponding to the expected molecular mass of AMPK on immunoblots.

**FOR RESEARCH USE ONLY! Not to be used on humans.**

### APPLICATION (suggested concentration):

The antibody can be used for ELISA (0.25  $\mu$ g/ml), Western blotting (0.5 – 2.5  $\mu$ g/ml).

### APPLICATION DATA (Calculated MW = 62319 Da):



Western blot analysis of anti-AMPK alpha2 C-term pAb in mouse heart tissue lysate. AMPK alpha2 (arrow) was detected using purified pAb. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

### RELATED PRODUCTS:

#### Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

#### Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System