

## AMPK $\gamma$ , Rabbit pAb

<b>CATALOG #:</b>	3109-100
<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 center region of human PRKAG1.
<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:

AMPK gamma-1 chain is a regulatory 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. This subunit is one of the gamma regulatory subunits of AMPK.

### BACKGROUND REFERENCES:

1. Minokoshi, Y., et al., Nature 428(6982):569-574 (2004).
2. Hamilton, S.R., et al., FEBS Lett. 500(3):163-168 (2001).
3. Zidovetzki, R., et al., AIDS Res. Hum. Retroviruses 14(10):825-833 (1998).
4. Reinton, N., et al., Genomics 49(2):290-297 (1998).
5. Stapleton, D., et al., FEBS Lett. 409(3):452-456 (1997).

### OTHER NAMES:

5'-AMP-activated protein kinase, gamma-1 subunit, AMPK gamma-1 chain, AMPKg

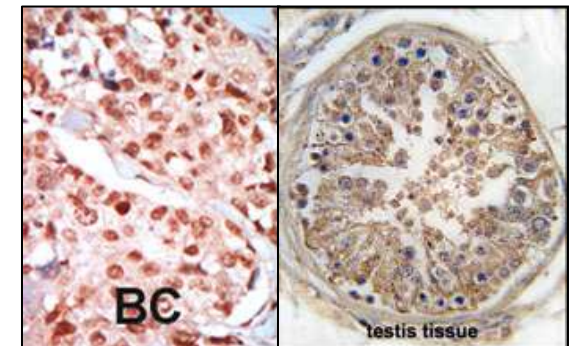
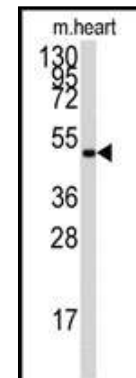
### SPECIFICITY:

The antibody detects a ~38 kDa band, corresponding to the expected molecular mass of AMPK  $\gamma$  (PRKAG1) on immunoblots.

### APPLICATION (suggested concentration):

The antibody can be used for ELISA (0.25  $\mu$ g/ml), Western blotting (0.5 – 2.5  $\mu$ g/ml) and Immunohistochemistry (2.5-5.0  $\mu$ g/ml).

### APPLICATION DATA (Calculated MW = 37579 Da):



The anti-AMPK $\gamma$  pAb (Cat. 3109-100) is used in Western blot to detect AMPK $\gamma$  in mouse heart tissue lysate.

Formalin-fixed and paraffin-embedded human breast cancer tissue (Left) and human testis tissue (Right) reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry.

### 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