

## Anti-AMPK $\alpha$ 1

Rabbit Polyclonal Antibody

**Catalog # P47-63R**

Lot # H245-5

### Cited Applications

- Western blot (1:1000)

Ideal working dilutions for each application should be empirically determined by the investigator.

### Specificity

Recognizes the AMPK $\alpha$ 1 protein

### Cross Reactivity

- Western blot human AMPK $\alpha$ 1

AMPK1 from other species may also be detectable

### Host

Rabbit

### Immunogen

Synthetic peptide corresponding to amino acids 483-487 of human AMPK $\alpha$

### Formulation

PBS pH 7.4, 0.02% sodium azide, 50% glycerol

### Stability

Store at 4°C (add 0.1% NaN<sub>3</sub>) for several months, and at -20°C for longer periods. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles.

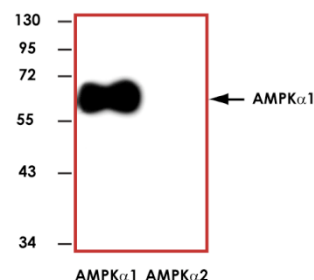
### Scientific Background

AMP-activated protein kinase (AMPK) exhibits a key role as a master regulator of cellular energy homeostasis (1). AMPK exists as a heterotrimeric complex composed of a catalytic  $\alpha$  subunit and regulatory  $\beta$  and  $\gamma$  subunits. Binding of AMP to the  $\gamma$  subunit allosterically activates the complex. AMPK is activated in response to stresses that deplete cellular ATP (low glucose, hypoxia and ischemia) (2) and via signaling pathways in response to adiponectin, leptin and CAMKK $\beta$ .

### References

1. Hardie, G.D. The AMP-activated protein kinase pathway – new players upstream and downstream. *J. Cell Sci.* 2004;117: 5479–5487.
2. Kahn, B.B. et al. AMP-activated protein kinase: Ancient energy gauge provides clues to modern understanding of metabolism. *Cell Metab.* 2005; 1, 15–25.

### Sample Data



Representative western blot with Anti-AMPK1 $\alpha$  (1:1000) using 20 ng of human recombinant AMPK1 and AMPK2.

## Anti-AMPK1

Rabbit Polyclonal Antibody

Catalog Number	P47-63R
Specific Lot Number	H245-5
Purification	Affinity chromatography
Concentration	1.0 $\mu$ g/ $\mu$ L
Stability	1 yr At -20°C from date of shipment
Storage & Shipping	Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: [orders@signalchem.com](mailto:orders@signalchem.com)  
[www.signalchem.com](http://www.signalchem.com)

**FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.**