

## (KO Validated) AMPK $\alpha$ 2 Polyclonal Antibody

Catalog No. E-AB-63857

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

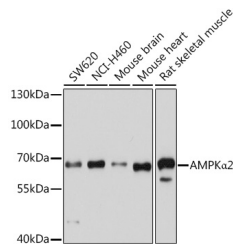
### Description

<b>Reactivity</b>	Human, Mouse, Rat
<b>Immunogen</b>	Recombinant fusion protein of human AMPK $\alpha$ 2 (NP_006243.2).
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Purification</b>	Affinity purification
<b>Conjugation</b>	Unconjugated
<b>Buffer</b>	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

### Applications Recommended Dilution

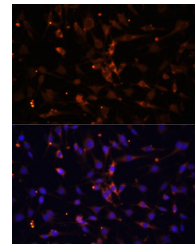
<b>WB</b>	1:500-1:2000
<b>IF</b>	1:50-1:200

### Data

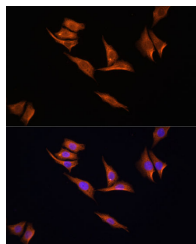


Western blot analysis of extracts of various cell lines using AMPK $\alpha$ 2 Polyclonal Antibody at dilution of 1:1000.

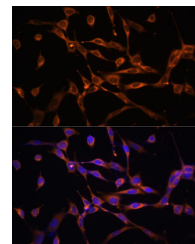
**Observed Mw:69kDa**  
**Calculated Mw:62kDa**



Immunofluorescence analysis of C6 cells using AMPK $\alpha$ 2 Polyclonal Antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of HeLa cells using AMPK $\alpha$ 2 Polyclonal Antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH-3T3 cells using AMPK $\alpha$ 2 Polyclonal Antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

### Preparation & Storage

#### For Research Use Only

**Storage** Store at -20°C. Avoid freeze / thaw cycles.

## Background

The protein encoded by this gene 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.

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