

For Research Use Only

# AMPK Alpha 2 Polyclonal antibody

Catalog Number: 18167-1-AP

Featured Product

49 Publications



## Basic Information

### Catalog Number:

18167-1-AP

### Size:

150ul, Concentration: 600 µg/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG12796

### GenBank Accession Number:

BC069680

### GeneID (NCBI):

5563

### UNIPROT ID:

P54646

### Full Name:

protein kinase, AMP-activated, alpha 2 catalytic subunit

### Calculated MW:

552 aa, 62 kDa

### Observed MW:

62 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:500-1:2000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:100-1:400

IF 1:50-1:500

## Applications

### Tested Applications:

WB, IP, IF, IHC, ELISA

### Cited Applications:

WB, IP, IF, IHC

### Species Specificity:

human, mouse, rat

### Cited Species:

human, rat, mouse, pig

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB:** HeLa cells, HEK-293 cells, human skeletal muscle tissue, rat ovary tissue, SKOV-3 cells, MCF-7 cells

**IP:** mouse skeletal muscle tissue,

**IHC:** human breast cancer tissue, mouse skeletal muscle tissue

**IF:** MCF-7 cells,

## Background Information

PRKAA2 (protein kinase, AMP-activated, alpha 2 catalytic subunit), also named as AMPK2, AMPK, PRKAA, AMPK2, belongs to the CAMK Ser/Thr protein kinase family and SNF1 subfamily. PRKAA2 is an  $\alpha\beta\gamma$  heterotrimer that is activated by low cellular energy status, such as decreases in both the ATP/AMP ratio and the phosphocreatine content and it is a glycogen synthase kinase, phosphorylating Ser7 at the NH2 terminus, which decreases glycogen synthase activity (PMID:14532170). The protein can be ubiquitinated (PMID:21224036).

## Notable Publications

Author	Pubmed ID	Journal	Application
Cefan Zhou	32972302	Autophagy	WB
Zhan Zhao	28959186	Front Mol Neurosci	WB
Lu Liu	27600020	Eur J Pharmacol	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

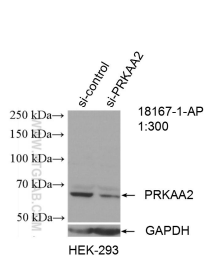
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

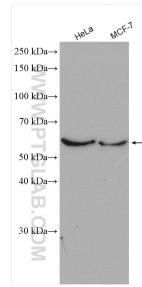
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

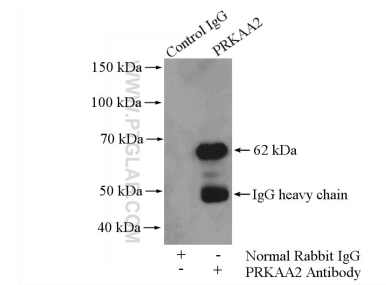
## Selected Validation Data



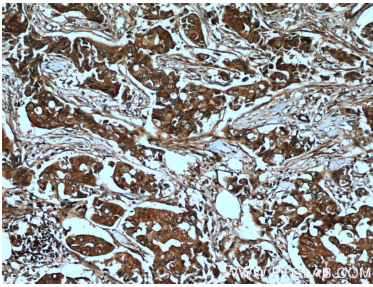
WB result of AMPK alpha 2 antibody (18167-1-AP; 1:300; incubated at room temperature for 1.5 hours) with sh-Control and sh-AMPK alpha 2 transfected HEK-293 cells.



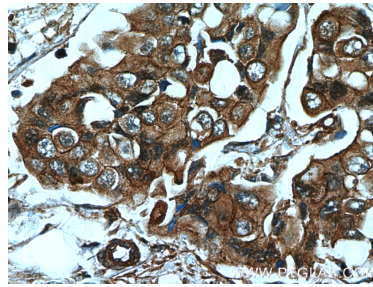
Various lysates were subjected to SDS PAGE followed by western blot with 18167-1-AP (AMPK alpha 2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



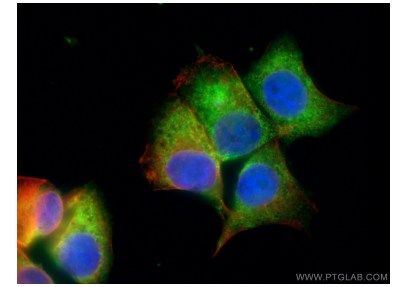
IP result of anti-AMPK Alpha 2 (IP:18167-1-AP, 4ug; Detection:18167-1-AP 1:1000) with mouse skeletal muscle tissue lysate 3600ug.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 18167-1-AP (AMPK alpha 2 antibody at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 18167-1-AP (AMPK alpha 2 antibody at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed MCF-7 cells using AMPK Alpha 2 antibody (18167-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).