For Research Use Only

AMPK Alpha 2 Polyclonal antibody

Catalog Number:18167-1-AP Featured Product 47 Publications

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Basic Information

Catalog Number:
18167-1-AP

Size:
600 μg/ml

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 ug for 1.0-3.0 mg of total protein lysate
IHC 1:100-1:400
IF 1:50-1:500

Applications

Tested Applications:
IF/ICC, IHC, IP, WB, ELISA

Cited Applications:
IF, IHC, IP, WB

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 AMPKA2, AMPK, PRKAA, AMPK2, belongs to the CAMK Ser/Thr protein kinase family and SNF1 subfamily. PRKAA2 is an α β γ 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

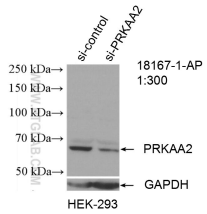
Author	Pubmed ID	Journal	Application
Cefan Zhou	32972302	Autophagy	WB
Zhan Zhao	28959186	Front Mol Neurosci	WB
Lu Liu	27600020	Eur J Pharmacol	WB

Storage

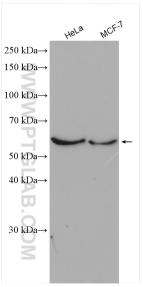
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

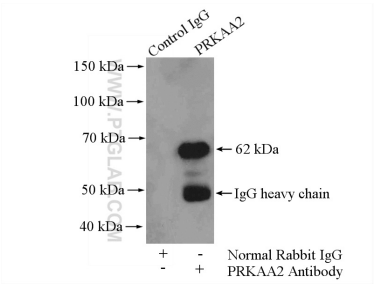
Selected Validation Data



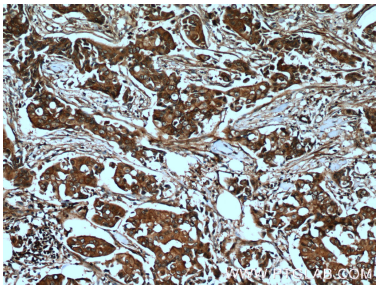
WB result of AMPK alpha 2 antibody (18167-1-AP; 1:300; incubated at room temperature for 1.5 hours) with sh-Control and sh-AMPK alpha 2 transfected HEK-293 cells.



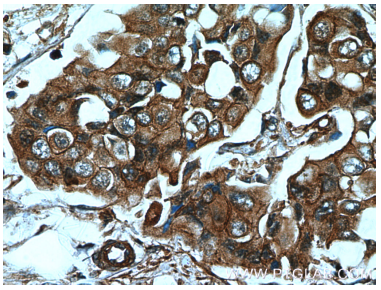
Various lysates were subjected to SDS PAGE followed by western blot with 18167-1-AP (AMPK alpha 2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



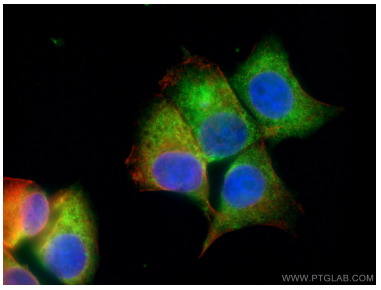
IP result of anti-AMPK Alpha 2 (IP:18167-1-AP, 4ug; Detection:18167-1-AP 1:1000) with mouse skeletal muscle tissue lysate 3600ug.



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).