

For Research Use Only

AMPK Gamma 1 Polyclonal antibody

Catalog Number: 10290-1-AP

Featured Product

9 Publications



Basic Information

Catalog Number:

10290-1-AP

Size:

150ul, Concentration: 550 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0302

GenBank Accession Number:

BC000358

GeneID (NCBI):

5571

UNIPROT ID:

P54619

Full Name:

protein kinase, AMP-activated, gamma 1 non-catalytic subunit

Calculated MW:

38 kDa

Observed MW:

35-38 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:4000

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

IHC 1:20-1:200

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB

Species Specificity:

human

Cited Species:

human, mouse, rat

Positive Controls:

WB : HeLa cells, HEK-293 cells, Jurkat cells, K-562 cells

IP : K-562 cells,

IHC : human testis tissue, human skeletal muscle tissue

IF/ICC : HeLa cells,

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

Background Information

Protein kinase, AMP-activated, gamma 1 non-catalytic subunit (PRKAG1, synonyms: AMPKG, MGC8666) is a regulatory subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an catalytic subunit, and non-catalytic and 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 iAMP-activated protein kinase (AMPK) is a highly conserved heterotrimeric serine/threonine kinase widely characterised as a sensor of cellular energetic stress. AMPK is a heterotrimeric complex consisting of a catalytic α -subunit and two regulatory subunits (β and γ). 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. AMPK gamma 1 is one of the gamma regulatory subunits of AMPK.

Notable Publications

Author	Pubmed ID	Journal	Application
Qidong Li	31155494	Cell Metab	WB
Zhe Zheng	33658485	Cell Death Dis	WB
Yuwen Sheng	34931827	J Med Chem	WB

Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

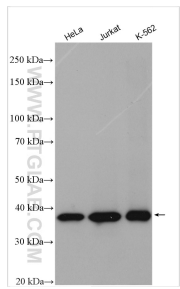
For technical support and original validation data for this product please contact:

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

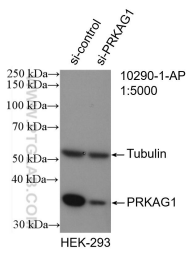
E: proteintech@ptglab.com
W: ptglab.com

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

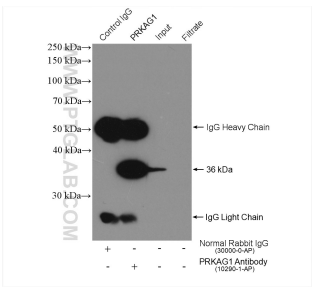
Selected Validation Data



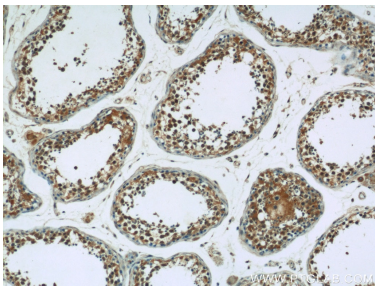
Various lysates were subjected to SDS PAGE followed by western blot with 10290-1-AP (AMPK Gamma 1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



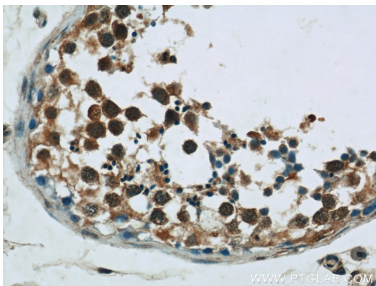
WB result of AMPK Gamma 1 antibody (10290-1-AP; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-AMPK Gamma 1 transfected HEK-293 cells.



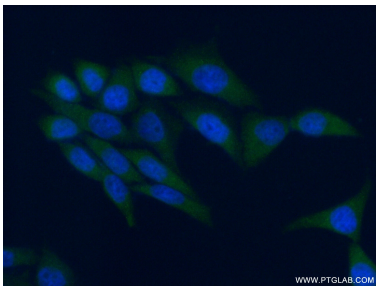
IP result of anti-AMPK Gamma 1 (IP:10290-1-AP, 4ug; Detection:10290-1-AP 1:1000) with K-562 cells lysate 3680 ug.



Immunohistochemical analysis of paraffin-embedded human testis tissue slide using 10290-1-AP (AMPK gamma 1 antibody) at dilution of 1:50 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human testis tissue slide using 10290-1-AP (AMPK gamma 1 antibody) at dilution of 1:50 (under 40x lens).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using 10290-1-AP (AMPK gamma 1 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated Goat Anti-Rabbit IgG(H+L).