

For Research Use Only

AMPK Beta 1 Polyclonal antibody

Catalog Number:10308-1-AP

Featured Product

22 Publications



Basic Information

Catalog Number:

10308-1-AP

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0301

GenBank Accession Number:

BC001007

GeneID (NCBI):

5564

UNIPROT ID:

Q9Y478

Full Name:

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

Calculated MW:

38 kDa

Observed MW:

38 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: 1:50-1:500

IF/ICC: 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IF, IP

Species Specificity:

human, mouse

Cited Species:

human, mouse, rat

Positive Controls:

WB: mouse liver tissue, A431 cells, HEK-293 cells, HeLa cells

IP: mouse liver tissue,

IHC: human lung cancer 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

AMPK Beta 1 (5'-AMP-activated protein kinase subunit beta-1) is also named as PRKAB1 and AMPK. AMPK, a serine/threonine kinase that exists as a heterotrimer comprised of a catalytic α -subunit and regulatory β - and γ -subunits, has been recognized as a sensor of cellular energy homeostasis (PMID: 21937710). AMPK regulates key metabolic enzymes, cell growth, apoptosis, gene transcription, and protein synthesis (PMID: 12829246). AMPK is an energy sensor and plays an essential role in the control of cellular bioenergetics by responding to various stresses including those that induce changes in the cellular AMP:ATP ratio or modulation in intracellular calcium (PMID: 27812976, PMID: 26616193). Recent studies have shown that AMPK mediates the inhibition of cell proliferation and growth of tumor cells (PMID: 16613876). AMPK also inhibits the expression of Glut1 and glycolysis in Tregs by inhibiting mTORC1 signaling (PMID: 25477880).

Notable Publications

Author	Pubmed ID	Journal	Application
Jie Huang	36068398	Hum Cell	WB
Qidong Li	31155494	Cell Metab	WB,IP
Zhe Zheng	33658485	Cell Death Dis	IF

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

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

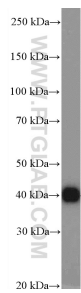
T: 4006900926

E: Proteintech-CN@ptglab.com

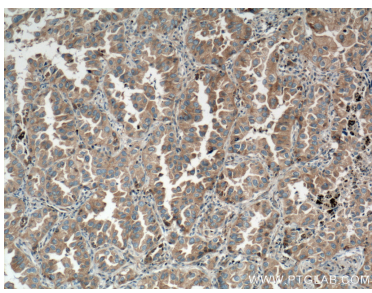
W: ptgcn.com

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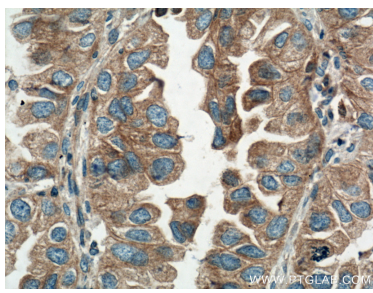
Selected Validation Data



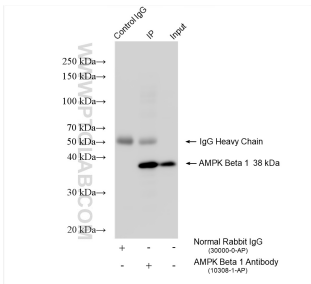
mouse liver tissue were subjected to SDS PAGE followed by western blot with 10308-1-AP (AMPK beta 1 antibody at dilution of 1:1000 incubated at room temperature for 1.5 hours.



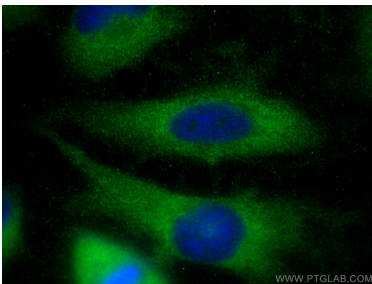
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 10308-1-AP (AMPK beta 1 antibody at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 10308-1-AP (AMPK beta 1 antibody at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-AMPK Beta 1 (IP:10308-1-AP, 4ug; Detection:10308-1-AP 1:5000) with mouse liver tissue lysate 1960 ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using AMPK Beta 1 antibody (10308-1-AP) at dilution of 1:400 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).