Leader in Biomolecular Solutions for Life Science

www.abclonal.com

[KO Validated] AMPKα1 Rabbit mAb

Catalog No.: A28094 KO Validated Recombinant

Basic Information

Observed MW
64kDa

Calculated MW
64kDa

Category
Primary antibody

Applications
WB,IP,IF/ICC,IHC-P,ELISA

Cross-Reactivity
Human, Mouse, Rat

CloneNo number
ARC73664

Background

The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed.

Recommended Dilutions

WB	1:5000 - 1:20000
IP	0.5μg-4μg antibody for 200μg-400μg extracts of whole cells
IF/ICC	1:100 - 1:200
IHC-P	1:300 - 1:1200
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Immunogen Information

Gene ID
5562

Swiss Prot
Q13131

Immunogen
Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms
AMPK; AMPKa1; AMPK alpha 1

Product Information

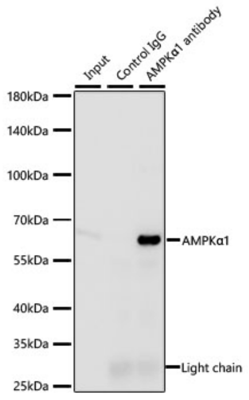
Source
Rabbit

Isotype
IgG

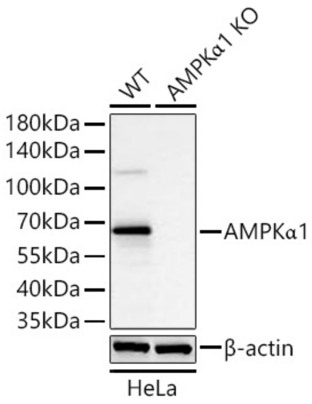
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.09% Sodium azide,0.05% BSA,50% glycerol,pH7.3.

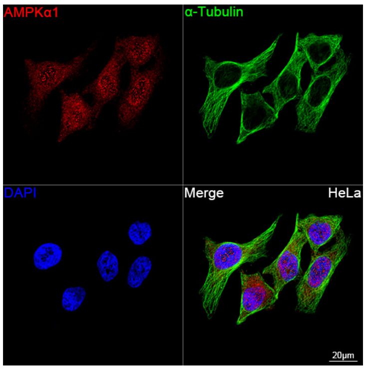
Validation Data



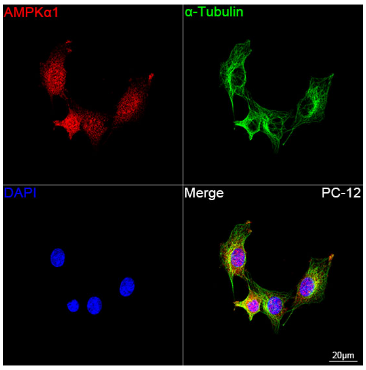
Immunoprecipitation of AMPKα1 from 300 μg extracts of HeLa cells was performed using 2 μg of [KO Validated] AMPKα1 Rabbit mAb (A28094). Rabbit Control IgG (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1X Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using [KO Validated] AMPKα1 Rabbit mAb (A28094) at a dilution of 1:5000.



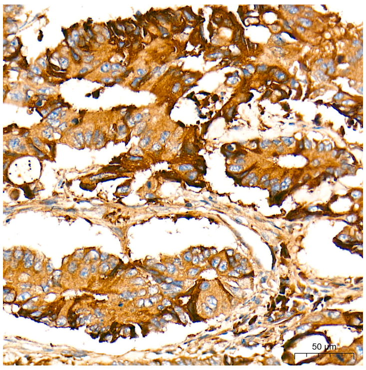
Western blot analysis of lysates from wild type (WT) and AMPKα1 knockout (KO) HeLa cells using [KO Validated] AMPKα1 Rabbit mAb (A28094) at 1:5000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25 μg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 20s.



Confocal imaging of HeLa cells using [KO Validated] AMPKα1 Rabbit mAb (A28094, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

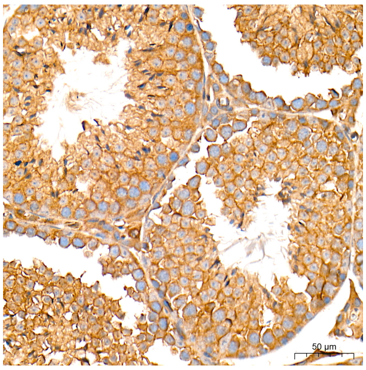


Confocal imaging of PC-12 cells using [KO Validated] AMPKα1 Rabbit mAb (A28094, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

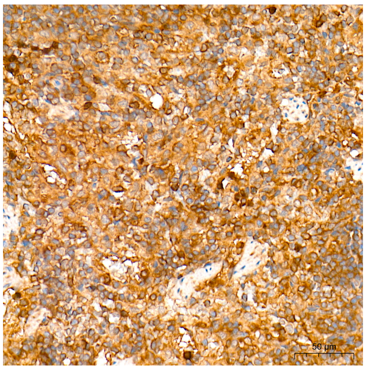


Immunohistochemistry analysis of paraffin-embedded Human colon carcinoma tissue using [KO Validated] AMPKα1 Rabbit mAb (A28094) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.

Validation Data



Immunohistochemistry analysis of paraffin-embedded Mouse testis tissue using [KO Validated] AMPKα1 Rabbit mAb (A28094) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat spleen tissue using [KO Validated] AMPKα1 Rabbit mAb (A28094) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.