Anti-Phospho-AMPK alpha 1 (Thr183)/AMPK alpha 2 (Thr172) Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R013813

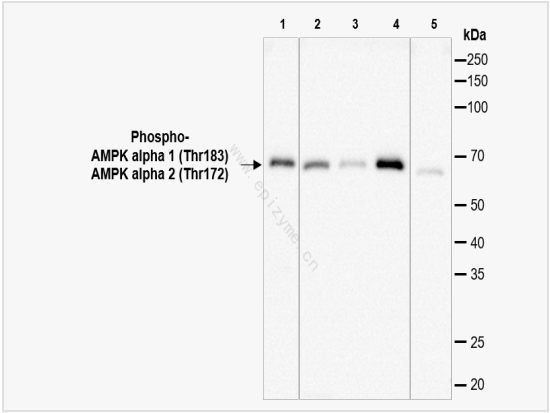
Product Information

Application	IF (Cell)/ICC, ELISA, WB, IHC-P/IF (Tissue-P)
Reactivity	Human, Mouse
Dilution	WB 1:1,000~1:2,000; IHC-P 1:200; IF 1:100
Host	Rabbit
Clonality	Monoclonal
Clone No.	48F92M22
Isotype	IgG
Label	Unconjugated
Immunogen	A synthetic phosphopeptide corresponding to residues surrounding Thr183/Thr172 of human AMPK alpha 1/AMPK alpha 2
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Phospho-AMPK alpha 1 (Thr183)/AMPK alpha 2 (Thr172) Rabbit mAb [48F92M22] is for research use only and not for use in diagnostic or therapeutic procedures.

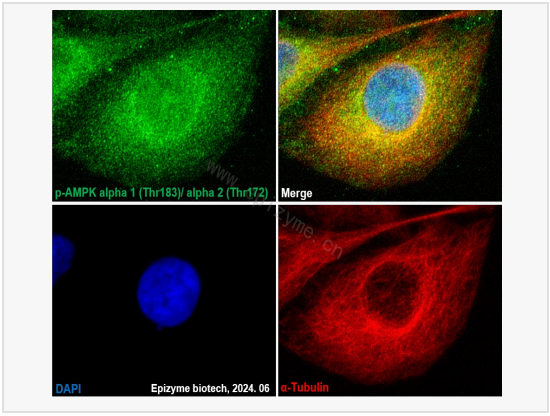
Protein Information

Synonyms	AMPK, AMPKa1, AMPK alpha 1 (phospho T183) / AMPK alpha 2 (phospho T172), 5'-AMP-activated protein kinase catalytic subunit alpha-1, AAPK1_HUMAN, AAPK2_HUMAN, ACACA kinase, Acetyl-CoA carboxylase kinase, AMPK alpha 1 chain, AMPK alpha 2 chain, AMPK subunit alpha-1, AMPK1, AMPK2, HMGCR kinase, Hydroxymethylglutaryl-CoA reductase kinase, PRKAA, PRKAA1, PRKAA2, Protein kinase AMP activated alpha 1 catalytic subunit, Protein kinase AMP activated alpha 2 catalytic subunit, Tau-protein kinase PRKAA1, AMPKα1.
Calculated MW	Calculated MW: 64 kDa; Observed MW: 64 kDa
Uniprot ID	P54646
Gene ID	5562
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. [provided by RefSeq, Jul 2008]

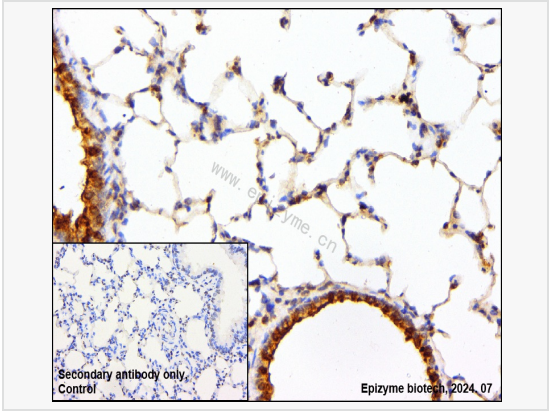
Validation Images



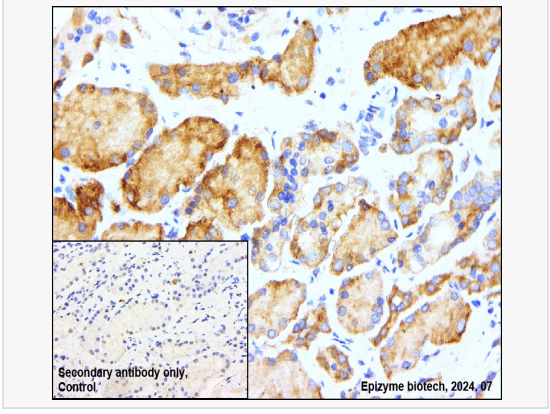
Western Blot - Anti-Phospho-AMPK alpha 1 (Thr183)/AMPK alpha 2 (Thr172) Rabbit mAb [48F92M22]
All lanes: R013813 at 1:1,000 dilution
Lane 1: A431 (human epidermoid carcinoma cell)whole cell lysates
Lane 2: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysates
Lane 3: SCC-9 (human tongue squamous carcinoma epithelial cell) whole cell lysates
Lane 4: U2OS (human osteosarcoma epithelial cell) whole cell lysates
Lane 5: Balb/c mouse liver whole tissue lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Rabbit IgG(H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
Predicted band size: 64 kDa
Observed band size: 64 kDa
Developed using the ECL technique (Cat. No. SQ201).



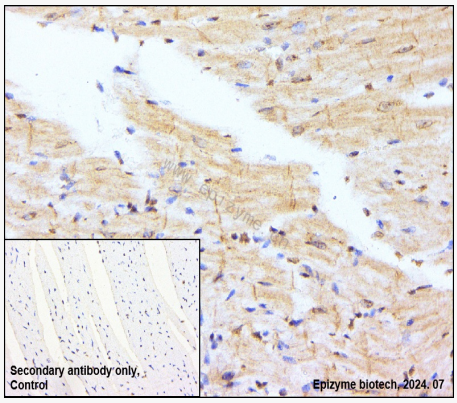
Immunofluorescence - Anti-Phospho-AMPK alpha 1 (Thr183)/AMPK alpha 2 (Thr172) Rabbit mAb [48F92M22]
Sample: Hela cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R013813 at 1:100 dilution and α-tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution
Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)
Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-Phospho-AMPK alpha 1 (Thr183)/AMPK alpha 2 (Thr172) Rabbit mAb [48F92M22]
Sample: Paraformaldehyde-fixed, paraffin embedded rat lung tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013813 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Phospho-AMPK alpha 1 (Thr183)/AMPK alpha 2 (Thr172) Rabbit mAb [48F92M22]
Sample: Paraformaldehyde-fixed, paraffin embedded human renal carcinoma tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013813 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Phospho-AMPK alpha 1 (Thr183)/AMPK alpha 2 (Thr172) Rabbit mAb [48F92M22]
Sample: Paraformaldehyde-fixed, paraffin embedded mouse heart tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013813 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.