

Anti-Phospho-AMPK alpha 1 (Thr183) Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep)
Molecular Weight:	Theoretical: 64 kDa.
Purification:	Protein A purified

Applications

1. Blank control (Black line): Mouse spleen (Black).
Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha-1 (Thr183) antibody (TMAB-01387)
Dilution: 3 µg/10⁶ cells;
Isotype Control Antibody (orange line): Rabbit IgG.
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647
Dilution: 1 µg/test.

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 10,000 events was performed.

2. Paraformaldehyde-fixed, paraffin embedded (mouse heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (TMAB-01387) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

Verified Activity:

3. Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (TMAB-01387) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

4. Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (TMAB-01387) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

5. Paraformaldehyde-fixed, paraffin embedded (human pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (TMAB-01387) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

6. Paraformaldehyde-fixed, paraffin embedded (rat liver); Antigen retrieval by boiling in

sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (TMAB-01387) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

7. Blank control: U937. Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha-1 (Thr183) antibody (TMAB-01387)

Dilution: 1 µg/Test;

Secondary Antibody: Goat anti-rabbit IgG-FITC

Dilution: 0.5 µg/Test.

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

8. Blank control: U937. Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha-1 (Thr183) antibody (TMAB-01387)

Dilution: 1 µg/Test;

Secondary Antibody: Goat anti-rabbit IgG-FITC

Dilution: 0.5 µg/Test.

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

9. Paraformaldehyde-fixed, paraffin embedded (rat heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (TMAB-01387) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

10. Paraformaldehyde-fixed, paraffin embedded (mouse liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (TMAB-01387) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

11. Blank control (black line): HepG2

Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha-1 (Thr183) antibody (TMAB-01387)

Dilution: 1 µg/Test;

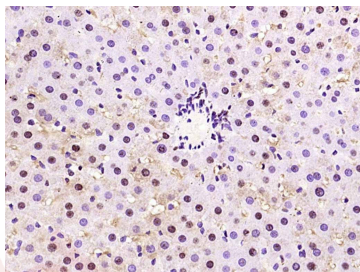
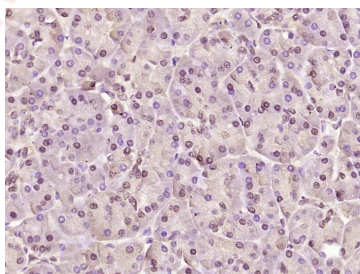
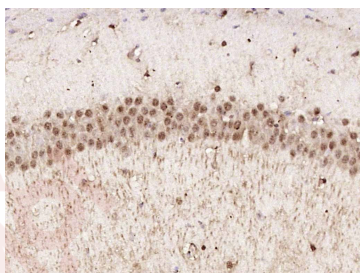
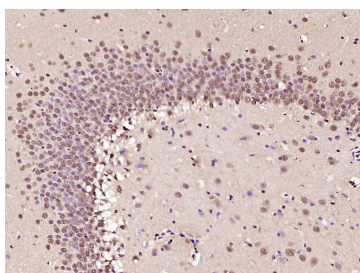
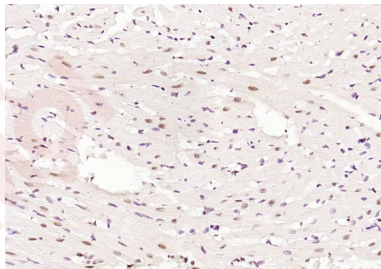
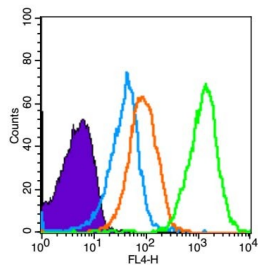
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF488

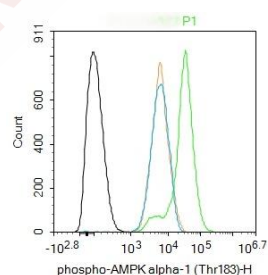
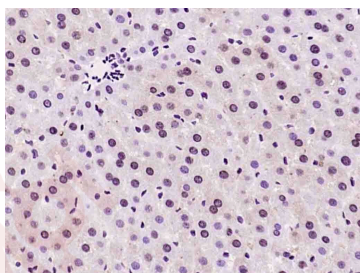
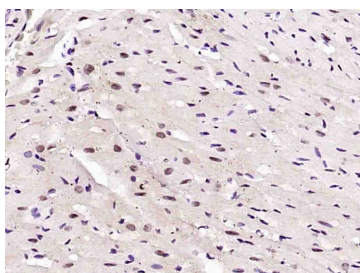
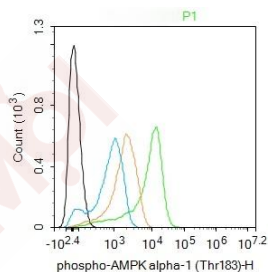
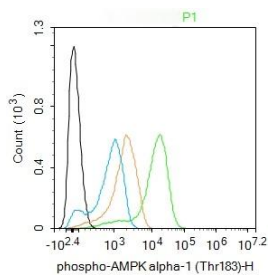
Dilution: 0.5 µg/Test.

Isotype control (orange line): Normal Rabbit IgG

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.





Application: FCM,IF,IHC-Fr,IHC-P

Recommended IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1ug/test

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated Synthesised phosphopeptide: human AMPK alpha 1 around the phosphorylation site of Thr198(isoform 2)/Thr183(isoform 1)
Antigen Species:	Human
Gene ID:	5562
Synonyms:	AMPK α 1;AMPK α 1;MGC57364;AMPK alpha-1;wu:fa94c10;acetyl CoA carboxylase kinase;AMPK alpha 1 chain;AAPK1;AMPK 1;AMPK alpha 1 (p-T183);Protein kinase AMP activated alpha 1 catalytic subunit;hormone sensitive lipase kinase;AI450832;EC 2.7.11.1;PRKAA 1;AMPK α 1;p-AMPK alpha 1 (Thr183);AMP-activated protein kinase, catalytic, alpha-1;SNF1-like protein AMPK;AMP-activate kinase alpha 1 subunit;AMPK α 1;HMG CoA reductase kinase;cb116;AMPK AMPK- α 1;AMPK α 1;PRKAA1;AMPK1;im:7154392;AMPK-a;5' AMP activated protein kinase catalytic subunit alpha 1;AMPK α 1;5 AMP activated protein kinase catalytic alpha 1 chain; kinase AMPK alpha1;AL024255;p-AMPK alpha 1 (T183);AMPK alpha 1 (p-Thr183);5 AMP activated protein kinase alpha 1 catalytic subunit;AI194361;AMPK;C130083N04Rik;MGC33776; AMPKalpha1
Biology Area:	Integration of energy metabolism,Response to hypoxia,Metabolism,Integration of energy,Fatty acids,Hypoxia,Fatty acid oxidation,Cancer,Neurodegenerative disease,Amyloid,Other Kinases

Research 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]

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481