Data Sheet (Cat.No.TMAB-00112)

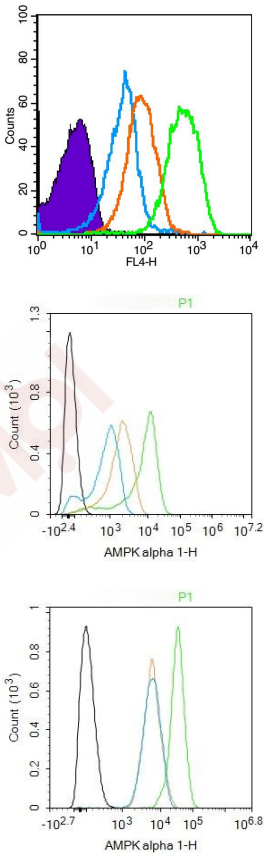
Anti-AMPK alpha 1 Polyclonal Antibody

Product Details

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

Applications

Verified Activity:	1. Blank control (Black line): Mouse spleen (Black). Primary Antibody (green line): Rabbit Anti-AMPK alpha1 antibody (TMAB-00112) Dilution: 3 µg/10^6 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. Blank control: U937. Primary Antibody (green line): Rabbit Anti-AMPK alpha 1 antibody (TMAB-00112) 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. 3. Blank control (black line): HepG2. Primary Antibody (green line): Rabbit Anti-AMPK alpha 1 antibody (TMAB-00112) 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
Recommended	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 synthetic peptide: human AMPK alpha 1
Antigen Species:	Human
Gene ID:	5562
Synonyms:	HMG CoA reductase kinase;AAPK1;AMP-activated protein kinase, catalytic, alpha-1;AMPK 1;5 AMP activated protein kinase catalytic alpha 1 chain;SNF1-like protein AMPK;AMPK alpha 1 chain;AMPK a1;PRKAA 1;MGC57364;5 AMP activated protein kinase alpha 1catalytic subunit; wu:fa94c10;MGC33776;hormone sensitive lipase kinase;AMPKα 1;im:7154392;EC 2.7.11.1; acetyl CoA carboxylase kinase;AMPK-a;AMPKa1;cb116;AMPK;5' AMP activated protein kinase catalytic subunit alpha 1;AI194361;AMPKalpha1;PRKAA1;AMP-activate kinase alpha 1 subunit; Protein kinase AMP activated alpha 1 catalytic subunit;AMPK1;C130083N04Rik;AI450832;AMPK α 1;AMPK α1;AMPK alpha-1;AMPKα1;AL024255;kinase AMPK alpha1
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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