Phospho-AMPKα1-T183/AMPKα2-T172 Rabbit pAb

Catalog NO.: AP0116SP **41 Publications**

Basic Information

Observed MW
62 kDa

Calculated MW
62 kDa/64 kDa/65 kDa

Category
Phosphorylated Antibodies

Applications
WB, ELISA

Cross-Reactivity
Human, Mouse, Rat

Conjugation
Unconjugated

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. The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia.

Recommended Dilutions

WB	1:1000 - 1:2000

ELISA
Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.For high-ratio antibody dilutions (⩾1:10000)

Immunogen Information

Gene ID
5562/5563

Swiss Prot
Q13131/P54646

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

Synonyms
AMPK; AMPK alpha 1; AMPKa1; AMPK; AMPK2; AMPKa2; PRKAA; Phospho-AMPKα1-T183/AMPKα2-T172

Contact

Product Information

order@abclonal.com
service@abclonal.com
www.abclonal.com

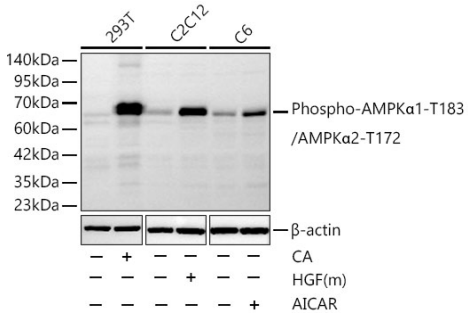
Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20°C. Avoid freeze / thaw cycles.
Buffer: PBS, pH 7.3, containing 50% glycerol. Preserved with Proclin300 or sodium azide. May contain 0.05% BSA as specified on the Certificate of Analysis.

Validation Data



Western blot analysis of various lysates using Phospho-AMPKα1-T183/AMPKα2-T172 Rabbit pAb (AP0116SP) at 1:1000 dilution incubated overnight at 4°C. 293T cells were treated with CA (100nM) at 37°C for 30min, C2C12 cells were treated with HGF(m)(100ng/nl) at 37°C for 30min, C6 cells were treated with AICAR (2mM) at 37°C for 4 hours.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 30 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 30 s.

For research use only. Not for therapeutic or diagnostic purposes.

Please visit **https://abclonal.com** for a complete list of recommended products.