

AMPK α 2, Rabbit pAb

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| CATALOG #: | 3169-100 |
| AMOUNT: | 100 μ g |
| HOST (ISOTYPE): | Rabbit (Ig) |
| IMMUNOGEN: | This AMPK alpha2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 476-507 amino acids from the C-terminal region of human AMPK alpha2. |
| SPECIES REACTIVITY: | Human, Mouse |
| FORMULATION: | 100 μ g (1 mg/ml) purified rabbit Ig polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified by precipitation with saturated ammonium sulphate solution, followed by dialysis against PBS. |
| STORAGE CONDITIONS: | Maintain refrigerated at 2-8°C for up to 6 months or -20°C for long term storage. |

BACKGROUND DESCRIPTION:

AMPK2 alpha2 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.

BACKGROUND REFERENCES:

1. Minokoshi, Y., et al., Nature 428(6982):569-574 (2004).
2. Andersson, U., et al., J. Biol. Chem. 279(13):12005-12008 (2004).
3. Browne, G.J., et al., J. Biol. Chem. 279(13):12220-12231 (2004).
4. Shaw, R.J., et al., Proc. Natl. Acad. Sci. U.S.A. 101(10):3329-3335 (2004).
5. Carling, D., Trends Biochem. Sci. 29(1):18-24 (2004).

OTHER NAMES:

5'-AMP-activated protein kinase, catalytic subunit alpha-2; AMPK alpha-2 chain

SPECIFICITY:

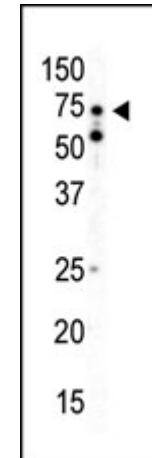
The antibody detects a ~62 kDa band, corresponding to the expected molecular mass of AMPK on Immunoblots.

FOR RESEARCH USE ONLY! Not to be used on humans.

APPLICATION (suggested concentration):

The antibody can be used for Western blotting at 1:1000 dilution.

APPLICATION DATA (Calculated MW = 62319 Da):



Western blot analysis of anti-AMPK alpha2 C-term pAb in mouse heart tissue lysate. AMPK alpha2 (arrow) was detected using purified pAb. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

RELATED PRODUCTS:

- Apoptosis Detection Kits & Reagents
 - Annexin V Kits & Bulk Reagents
 - Caspase Assay Kits & Reagents
 - Mitochondrial Apoptosis Kits & Reagents
 - Nuclear Apoptosis Kits & Reagents
 - Apoptosis Inducers and Set
 - Apoptosis siRNA Vectors
- Cell Fractionation System
 - Mitochondria/Cytosol Fractionation Kit
 - Nuclear/Cytosol Fractionation Kit
 - Membrane Protein Extraction Kit
 - Cytosol/Particulate Rapid Separation Kit
 - Mammalian Cell Extraction Kit
 - FractionPREP Fractionation System