AMPKα, Rabbit pAb

CATALOG #: 3113-100

AMOUNT: 100 µg

LOT #: _____

HOST (ISOTYPE): Rabbit (Ig)

IMMUNOGEN: KLH conjugated synthetic peptide corresponding to amino acid residues surrounding S487 of human PRKAA1.

SPECIES REACTIVITY: Human

FORMULATION:
100 µg (0.25 mg/ml) purified rabbit polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

STORAGE CONDITIONS:
Maintain refrigerated at 2-8°C for up to 6 months or -20°C for long term storage.

BACKGROUND DESCRIPTION:
AMPKα (PRKAA1) 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.

BACKGROUND REFERENCES:

1. Pang,T., J. Biol. Chem. 282 (1), 495-506 (2007)
2. Crawford,R.M., Cell. Signal. 18 (10), 1595-1603 (2006)
3. Crawford,R.M., Mol. Cell. Biol. 26 (15), 5921-5931 (2006)

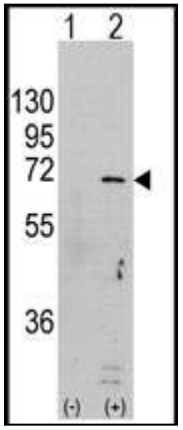
OTHER NAMES:
Protein kinase, AMP-activated, alpha 1 catalytic subunit; AMPK alpha-1 chain

SPECIFICITY:
The antibody detects a ~64 kDa band, corresponding to the expected molecular mass of AMPK on immunoblots.

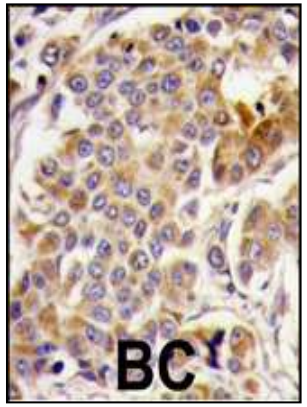
APPLICATION (suggested concentration):
The antibody can be used for ELISA (0.25 µg/ml), Western blotting (2.5 – 5.0 µg/ml), Immunohistochemistry (5-25 µg/ml).

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

APPLICATION DATA (Calculated MW = 63878 Da):



Western blot analysis of AMPKα (arrow) using rabbit pAb (Cat#3113-100). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PRKAA1 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with PRKAA1-pS487, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining.

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

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