

Product datasheet for TA813121M

OriGene Technologies, Inc.

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AMPK beta 1 (PRKAB1) Mouse Monoclonal Antibody [Clone ID: OTI8D5]

Product data:

Product Type: Primary Antibodies

Clone Name: OTI8D5

Applications: WB

Recommended Dilution: WB 1:500

Reactivity: Human, Rat, Monkey, Mouse

Host: Mouse Isotype: IgG1

Clonality: Monoclonal

Immunogen: Human recombinant protein fragment corresponding to amino acids 2-270 of human

PRKAB1 (NP_006244) produced in E.coli.

Formulation: PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.

Concentration: 1 mg/ml

Purification: Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography

(protein A/G)

Conjugation: Unconjugated

Store at -20°C as received.

Stability: Stable for 12 months from date of receipt.

Predicted Protein Size: 30.2 kDa

Gene Name: protein kinase AMP-activated non-catalytic subunit beta 1

Database Link: NP 006244

Entrez Gene 19079 MouseEntrez Gene 83803 RatEntrez Gene 695737 MonkeyEntrez Gene

<u>5564 Human</u>

Q9Y478





Background:

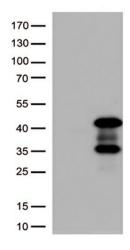
Non-catalytic subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism. In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation. AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin. Beta non-catalytic subunit acts as a scaffold on which the AMPK complex assembles, via its C-terminus that bridges alpha (PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2 or PRKAG3). [UniProtKB/Swiss-Prot Function]

Synonyms: AMPK; HAMPKb
Protein Families: Druggable Genome

Protein Pathways: Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling

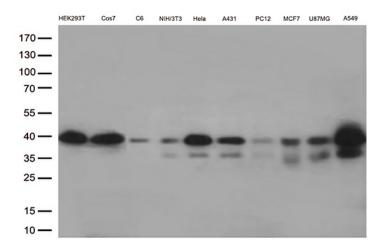
pathway

Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PRKAB1 (Cat# [RC203911], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PRKAB1 (Cat# [TA813121])(1:500).





Western blot analysis of extracts (35ug) from 10 cell lines lysates by using anti-PRKAB1 monoclonal antibody (1:500).