Mouse (monoclonal) Anti-AMPKα Unconjugated

PRODUCT ANALYSIS SHEET

Catalog Number:	AHO1332
Lot Number:	See product label
Quantity/Volume:	100 µg/0.2 mL
Clone Number:	9Q34
Isotype:	IgG1 κ (mouse)
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline, pH 7.2, with 1% bovine serum albumin.
Preservation:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified from ascites by affinity chromatography.
Immunogen:	Recombinant fragment of human AMPKα1 expressed in *E. coli*.
Specificity:	AMP-activated protein kinase (AMPK) is a metabolic and stress-sensing kinase that regulates homeostatis, and is a key target for treating Type 2 diabetes and obesity. AMPK exists as a heterotrimeric complex comprised of a catalytic α subunit (62 kDa) and non-catalytic β and γ subunits. AMPK is phosphorylated by upstream kinases, including AMPK Kinase (AMPKK) and LKB1, which results in AMPK activation. Activated AMPK in turn regulates metabolism by phosphorylating rate-limiting enzymes in metabolic pathways and controlling gene expression. Phosphorylation of threonine 172 in the activation loop of the α subunit is a key determinant of AMPK activity. This antibody recognizes AMPKα1 and its reactivity with other isoforms of AMPKα remains to be determined.
Species Reactivity:	Human, mouse and rat.
Applications:	This antibody is suitable for use in Western blotting.
Suggested Working Dilutions:	For Western blotting, the recommended concentration is 1 µg/mL. The optimal antibody concentration should be determined for each specific application.
Recommended Positive Control:	Human Hela cells, mouse L929 cells and rat L6 cells.
Storage:	Store at 2-8ºC. For long term storage, aliquot into small volumes and store at –20ºC. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.

This product is for research use only. Not for use in diagnostic procedures.

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References:

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Nagata, D., et al. (2003) AMP-activated protein kinase (AMPK) signaling in endothelial cells is essential for angiogenesis in response to hypoxic stress. J. Biol. Chem. 278(33):31000-31006.

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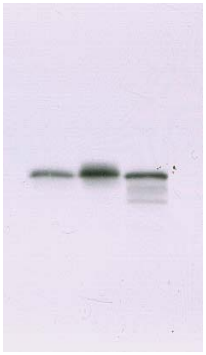
Related Products:

AKT Pathway Phospho 7-Plex Antibody Bead Kit for the Luminex™ 100	Cat. #	LHO0001
AKT Pathway Total 7-Plex Antibody Bead Kit for the Luminex™ 100	Cat. #	LHO0002
AMPKα1/2 [pT172] Phosphorylation Site Specific Antibody	Cat. #	44-1150G



- 60 kDa

1 2 3

Western Blot Analysis

Proteins from cell extracts of human HeLa cells (lane 1), mouse L929 cells (lane 2), and rat L6 cells (lane 3) were resolved by SDS-PAGE and transferred to PVDF. The membranes were incubated with this AMPKα monoclonal antibody (clone 9Q34) at a concentration of 1 µg/mL for two hours at room temperature. After washing, the membranes were incubated with a goat $F(ab')_2$ anti-mouse IgG alkaline phosphatase conjugated antibody (Cat. # AMI4405) at a 1:2000 dilution. Bands were detected with CDP-substrate using the WesternStar™ method (Tropix) and Kodak BioMax film.

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