

AMPKa [pT172] ABfinity™ Recombinant Rabbit Monoclonal Antibody – Purified

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Catalog Number: 701068

Store at 2–8°C

Clonality: Monoclonal
Concentration: 0.5 mg/mL
Quantity: 100 µg
Volume: 200 µL

Host/Class: Rabbit IgG
Reactivity: Human AMPK alpha
Predicted Reactivity: Human

Product Description

AMPKa belongs to the family of AMP activated protein kinases, that plays a central role in regulating cellular and organismal energy balance in response to the balance between AMP/ATP, and intracellular Ca²⁺ levels. AMPK exists as a heterotrimer comprising of catalytic alpha subunit, and regulatory beta and gamma subunits. The alpha subunit is activated by increases in the cellular AMP:ATP ratio caused by metabolic stresses, and can mediate the effects of the adipokines leptin and adiponectin. Two isoforms (alpha 1, and alpha 2) differ in subcellular localization and AMP-dependence. Phosphorylation of threonine 172 in the alpha subunit is a key determinant of AMPK activity.

Product Specifications

Immunogen: Phosphopeptide corresponding to amino acids 168–178 of Human AMPK alpha
Alternate Names: PRKAB1
Apparent MW: ~62 kDa
Gene ID: 5562
Protein Accession No.: Q13131
Sequence Identity: Human
Sequence Homology: Mouse, Rat, Monkey, Drosophilla
Clone/PAD: 10H2L20
Lot: See product label

Product Applications

Application	Species	Test Material	Concentration
Western blotting	Human	HepG2 cells	2–5 µg/mL
Indirect ELISA	Human	Phosphopeptide	1.5x10 ⁻⁴ to 3 µg/mL

Storage and Handling

Store the antibody at 2–8°C for up to 1 month, or –20°C for long storage. Avoid repeated freezing and thawing.

Stability

Expires one year from date of receipt when stored as instructed.

Storage Buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.

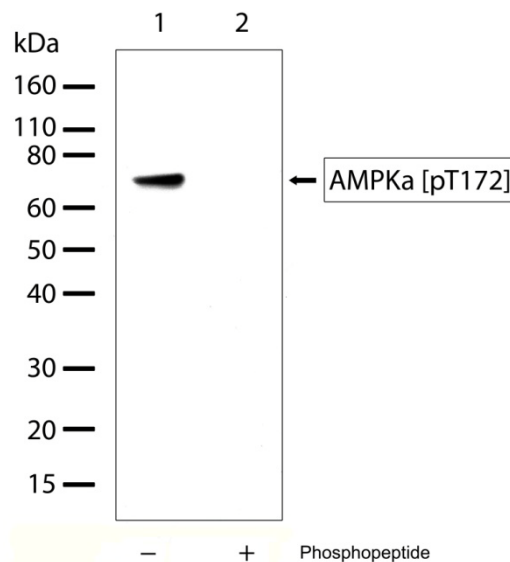


Figure 1 Western blot analysis of AMPKa [pT172] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701068) Western blot analysis was performed on whole cell extracts of HepG2 cells (lanes 1 and 2). A band corresponding to phosphorylated AMPKa was detected at ~62 kDa using AMPKa [pT172] ABfinity™ Recombinant Rabbit Monoclonal Antibody at a concentration of 2.5 µg/mL (lane 1). To confirm specificity, competition was performed with the phosphopeptide (lane 2).

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Safety Data Sheets (SDS)

Safety Data Sheets (SDSs) are available at www.invitrogen.com/sds.

Certificate of Analysis

The Certificate of Analysis provides detailed quality control and product qualification information for each product. Certificates of Analysis are available on our website. Go to www.invitrogen.com/support and search for the Certificate of Analysis by product lot number, which is printed on the box.

Related Products

Product Name	Quantity	Catalog No.
iBlot® Dry Blotting System	1 unit	IB1001
WesternBreeze™ Chromogenic Kit Anti-Rabbit	1 kit	WB7105
WesternBreeze™ Chemiluminescent Kit, Anti-Rabbit	1 kit	WB7106
Goat anti-mouse (H+L), HRP conj.	1 mg	G21040
Goat anti-rabbit (H+L), HRP conj.	1 mg	G21234
Goat anti-mouse (H+L), AP conj.	1 mg	G21060
Goat anti-rabbit (H+L), AP conj.	1 mg	G21079
Nitrocellulose, 0.2 µm	20/pack	LC2000

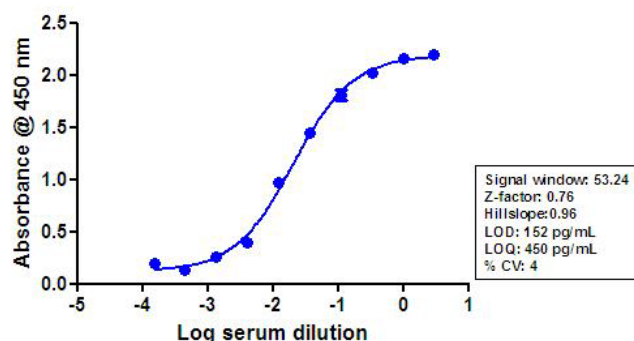


Figure 2 Indirect ELISA of AMPKa [pT172] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701068). Indirect ELISA was performed using various dilutions of AMPKa [pT172] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701068) to detect phospho AMPKa [pT172] peptide coated onto the plate. A non-linear regression analysis was performed (4 PL) and LOD and LOQ for the antibody was determined.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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