

AMPKα [pT172] Rabbit Recombinant Oligoclonal Antibody – Purified

MAN0004618

Rev. Date: 21 June 2011

Catalog Number: 710099

Store at 2–8°C

Clonality: Oligoclonal
Concentration: 0.5 mg/mL

Host/Class: Rabbit IgG
Reactivity: Human AMP-activated protein kinase alpha

Quantity: 100 µg
Volume: 200 µL

Predicted Reactivity: Human

Product Description

AMPKα 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 Ca(2+) levels. AMPK exists as a heterotrimer comprising of a catalytic alpha subunit, and regulatory beta and gamma subunits. The alpha subunit has at least two isoforms (alpha 1 and alpha 2) which differ in their subcellular localization. It is activated by increases in the cellular AMP:ATP ratio caused by metabolic stresses. Phosphorylation of threonine 172 in the activation loop of the alpha subunit is a key determinant of AMPK activity.

Product Specifications

Immunogen: Peptide corresponding to amino acids 168–178 of human AMPKα
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: 10HCLC
Lot: See product label

Product Applications

Application	Species	Test Material	Concentration
Western blotting	Human	HepG2 cells	1–3 µg/mL
Indirect ELISA	Human	Phosphopeptide	1.5 × 10 ⁻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.

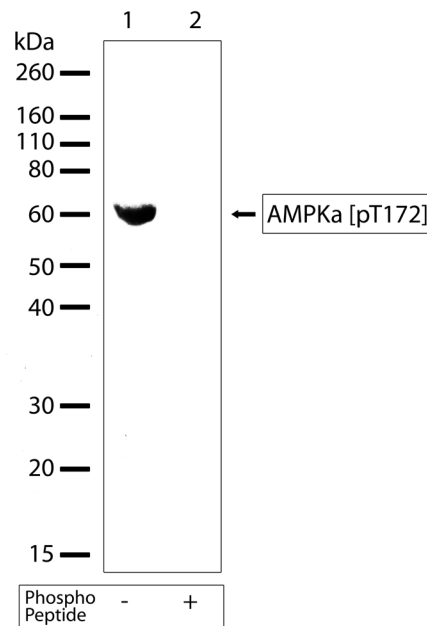


Figure 1 Western blot analysis of AMPKα [pT172] Rabbit Recombinant Oligoclonal Antibody (Cat. no. 710099). Western blot analysis was performed on whole cell extract of HepG2 cells (lanes 1 and 2). Phospho-AMPKα [pT172] was detected using AMPKα [pT172] Rabbit Recombinant Oligoclonal Antibody at 2.5 µg/mL (lane 1). A specific band of ~62 kDa corresponding to the phosphorylated AMPKα was detected. To confirm specificity, competition was performed with the phosphopeptide, showing inhibition of antibody binding (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

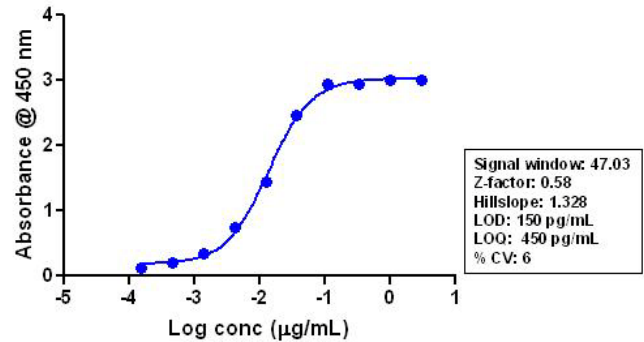


Figure 2 Indirect ELISA of AMPK α [pT172] Rabbit Recombinant Oligoclonal Antibody (Cat. no. 710099). Indirect ELISA was performed using various dilutions of AMPK α [pT172] Rabbit Recombinant Oligoclonal Antibody (Cat. no. 710099) to detect phospho AMPK α [pT172] peptide coated onto the plate. A non-linear 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		<i>In vitro</i> 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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