

# AB-PK897

## AMPK-pT172 (for AMPK-pT183) Antibody

Phosphosite-specific rabbit polyclonal antibody for AMPK $\alpha$ 1 (PRKAA1). This phosphothreonine-site antibody is highly specific for phosphothreonine.

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### Target Protein

<b>Protein Name Long:</b>	5'-AMP-activated protein kinase catalytic subunit alpha-1
<b>Protein Alias:</b>	5'-AMP-activated protein kinase, catalytic alpha-1 chain; AAPK1; Acetyl-CoA carboxylase kinase; AMPK alpha-1 chain; AMPK, alpha, 1; AMPK-alpha1; HMG-CoA reductase kinase; HMG-CoA reductase kinase; PRKAA1; Protein kinase, AMP-activated, alpha 1 catalytic subunit; MGC33776; MGC57364; CCDS3932.1; ENSG00000132356
<b>UniProt ID:</b>	Q13131
<b>Protein Molecular Mass:</b>	65,523 Da (574 AA; Q13131-2); 64,009 Da (559 AA; Q13131)

### Immunogen

<b>Antibody Immunogen Source:</b>	Synthetic phosphopeptide patterned after human AMPK
<b>Antibody Immunogen Sequence:</b>	EFLR(pT)S( $\beta$ A)C
<b>Antibody Immunogen Description:</b>	Corresponds to amino acid residues E168 to S173. Phosphorylation of T172 induces enzymatic activation in AMPK $\alpha$ 1. This is a minor <i>in vivo</i> phosphorylation sites in AML2 ( $\geq$ 5 reports from high throughput mass spectrometry studies in PhosphoSitePlus). The equivalent site is found in AMPK $\alpha$ 2, and can be phosphorylated <i>in vitro</i> by CAMKK2 and ERK2. AMPK $\alpha$ 1 is known to be phosphorylated at this site <i>in vitro</i> by CAMKK2, and ERK2.
<b>Antibody Target Type:</b>	Phosphosite-specific

### Production

<b>Antibody Host Species:</b>	Rabbit
<b>Antibody Type:</b>	Polyclonal
<b>Antibody Isotype:</b>	IgG
<b>Production Method:</b>	The immunizing peptide was produced by solid phase synthesis on a multipep peptide synthesizer and purified by reverse-phase hplc chromatography. Purity was assessed by analytical hplc and the amino acid sequence confirmed by mass spectrometry analysis. This peptide was coupled to KLH prior to immunization into rabbits. New Zealand White rabbits were subcutaneously injected with KLH-coupled immunizing peptide every 4 weeks for 4 months. The sera from these animals was applied onto an agarose column to which the immunogen peptide was thio-linked. Antibody was eluted from the column with 0.1 M glycine, pH 2.5. Subsequently, the antibody solution was neutralized to pH 7.0 with saturated Tris.
<b>Amount:</b>	25 $\mu$ g
<b>Antibody Concentration:</b>	0.85 mg/ml
<b>Storage Buffer:</b>	Phosphate buffered saline pH 7.4, 0.05% Thimerasol
<b>Storage Conditions:</b>	For long term storage, keep frozen at -40°C or lower. Stock solution can be kept at +4°C for more than 3 months. Avoid repeated freeze-thaw cycles.
<b>Storage Stability:</b>	>2 years

## Applications

<b>Product Use:</b>	Western blotting   Antibody microarray
<b>Antibody Dilution Recommended:</b>	2 µg/ml for immunoblotting
<b>Antibody Species Reactivity:</b>	Human   Rhesus Macaque   Dog   Rat   Mouse   Frog   Zebra fish   Nematode worm   Budding yeast

This product is for *in vitro* research use only and is not intended for use in humans or animals.

For more information on our products please visit <https://kinexus-ca.myshopify.com/> or contact us at 1-866-546-3987