

AbboMax, Inc

Innovation at Work

Rabbit anti-Phospho- AMPK alpha 1 (pThr¹⁷²)

Synonym: AMPKalpha-1; AMP-activated protein kinase alpha 1; PRKAA1; MGC57364; AMPK

Order Information

Description: Rabbit anti -AMPK alpha 1 (pT172)
Phosphospecific
Catalogue#: 620-120
Lot#: See the label
Size: 100 ug/200 ul
Host: Rabbit
Clone: N/A
Application: ELISA, WB, IHC
Reactivity: Hu, Rt, Ms, Bv, Dg, Ck, In.

ANTIGEN PREPARATION

A synthetic peptide surrounding to the epitope -LRTSC- with a phosphorylation site at Thr 172 of AMPK alpha 1 protein from human origin. It is identical among human, mouse, rat, chicken, bovine, dog, and insect species.

BACKGROUND

AMP-activated protein kinase (AMPK) is highly conserved from yeast to plants and animals and plays a key role in the regulation of energy balance at both the cellular and the whole body levels. Once activated, it affects a metabolic switch from an anabolic to a catabolic state, both by acutely phosphorylating metabolic enzymes and, in the longer term, by regulating gene expression. AMPK is a heterotrimeric complex composed of a catalytic α subunit and regulatory β and γ subunits. Binding APM to the beta domains triggers increased phosphorylation at Thr172 on the activation loop of the alpha subunit. AMP Phosphorylation at Thr172 is catalyzed by the tumor suppressor kinase LKB1 or CaMKK-beta, TGF-beta activated kinase-1 (TAK1). AMPK α is also phosphorylated at Thr258 and Ser485 (for α 1; Ser491 for α 2).

PURIFICATION

The Rabbit IgG is purified by site-modified Epitope Affinity Purification.

FORMULATION

This affinity purified antibody is supplied in sterile Tris-buffered saline (pH7.2) containing antibody stabilizer

SPECIFICITY

This antibody recognizes AMPK alpha with a phosphorylated site of Thr 172. It does not cross-react with non-phosphospecific peptide.

STORAGE

The antibodies are stable for 12 months from date of receipt when stored at -20°C to -70°C . The antibodies can be stored at 2°C - 8°C for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

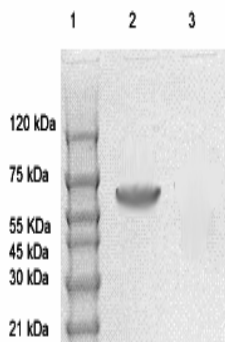
APPLICATIONS/SUGGESTED WORKING DILUTIONS

Western Blot	0.1-1 $\mu\text{g/ml}$
ELISA	0.01-0.1 $\mu\text{g/ml}$
Immunoprecipitation	2-5 $\mu\text{g/ml}$
IHC	Not tested
Flow cytometry	Not tested

MOLECULAR WEIGHT:	63 kDa
POSITIVE CONTROL:	Serum starved HEK293
CELLULAR LOCATION:	Cytoplasmic

Optimal dilutions should be determined by researchers for the specific applications.

DATA ATTACHMENTS



Western Blot: The whole cell lysate derived from serum starved HEK 293 was immunoblotted by Rabbit anti AMPK alpha 1 (pT172) (Cat#620-120) antibody at 1:500 (lane 2). BSA was loaded as a negative control (Lane 3).

REFERENCES

Jing Chen et al. AMPK regulation of mouse oocyte meiotic resumption in vitro. *Developmental Biology*, 291 (2), 227-238 (2006).

FOR RESEARCH USE ONLY.