

Anti-AMPK α 1 Antibody (7H670)

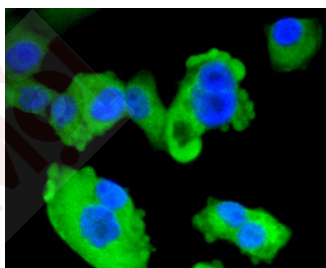
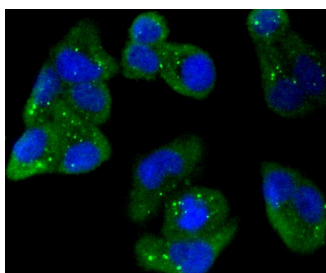
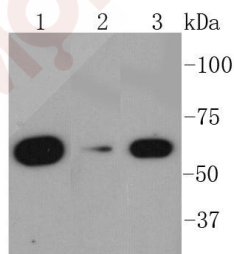
Product Details

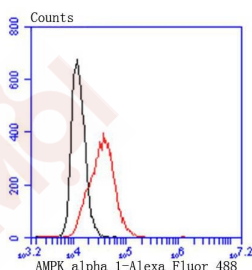
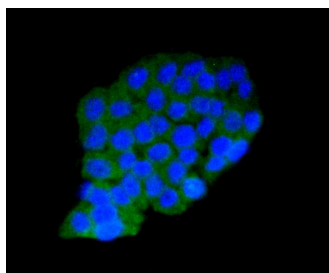
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 63 kDa.
Clone:	7H670
Purification:	ProA affinity purified

Applications

Verified Activity:

1. Western blot analysis of AMPK alpha 1 on different lysates using anti-AMPK alpha 1 antibody at 1/1,000 dilution. Positive control: Lane 1: Hela, Lane 2: HepG2, Lane 3: MCF-7.
2. ICC staining AMPK alpha 1 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
3. ICC staining AMPK alpha 1 in PANC-1 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining AMPK alpha 1 in PC-12 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. Flow cytometric analysis of Hela cells with AMPK alpha 1 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.





Application: FCM, ICC/IF, IP, WB

Recommended WB: 1:1000-5000; ICC/IF: 1:50-200; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: Q13131

PRKAA 1;AAPK1;5' AMP activated protein kinase catalytic subunit alpha 1;AI194361; C130083N04Rik;AMPK1;PRKAA1;SNF1A;AMPKalpha1;OTTHUMP00000161796;Protein kinase AMP activated alpha 1 catalytic subunit;5 AMP activated protein kinase alpha 1 catalytic subunit;im:7154392;acetyl CoA carboxylase kinase;AMPK subunit alpha-1;hormone sensitive lipase kinase;Hydroxymethylglutaryl CoA reductase kinase;AMP-activated protein kinase, catalytic, alpha -1;MGC57364;kinase AMPK alpha1;SNF1-like protein AMPK;5 AMP activated protein kinase catalytic alpha 1 chain;MGC33776;ACACA kinase;AMPKa1; OTTHUMP00000161795;AMPK a1;AMPK α 1;EC 2.7.11.1;AAPK1_HUMAN;HMGCR kinase;AMPK alpha1;AMP -activate kinase alpha 1 subunit;AMPK alpha 1;5'-AMP-activated protein kinase catalytic subunit alpha-1;HMG CoA reductase kinase;cb116;AMPK;AMPK alpha 1 chain;Tau protein kinase PRKAA1;AMPK 1;AL024255;wu:fa94c10;AI450832

Research Background

AMPK (for 5'-AMP-activated protein kinase) is a heterotrimeric complex comprising a catalytic α subunit and regulatory β and γ subunits. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming bio-synthetic pathways. AMPK is activated by high AMP and low ATP through a mechanism involving allosteric regulation, promotion of phosphorylation by an upstream protein kinase known as AMPK kinase, and inhibition of dephosphorylation. Activated AMPK can phosphorylate and regulate in vivo hydroxy-methylglutaryl-CoA reductase and acetyl-CoA carboxylase, which are key regulatory enzymes of sterol synthesis and fatty acid synthesis, respectively. The human AMPK α 1 and AMPK α 2 genes encode 548 amino acid and 552 amino acid proteins, respectively. Human AMPK β 1 encodes a 271 amino acid protein and human AMPK β 2 encodes a 272 amino acid protein. The human AMPK γ 1 gene encodes a 331 amino acid protein. Human AMPK γ 2 and AMPK γ 3, which are 569 and 492 amino acid proteins, respectively, contain unique N-terminal domains and may participate directly in the binding of AMP within the AMPK complex.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481