Data Sheet (Cat.No.TMAC-03190)

Anti-Phospho-AMPKα (Ser496) Antibody (3X970)

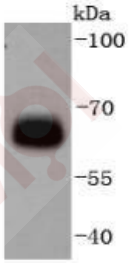
Product Details

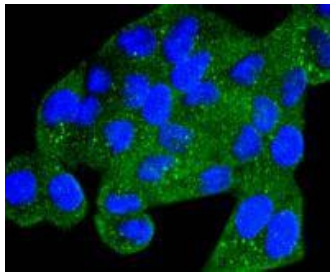
Ig Type:	IgG
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 64 kDa.
Clone:	3X970
Purification:	ProA affinity purified

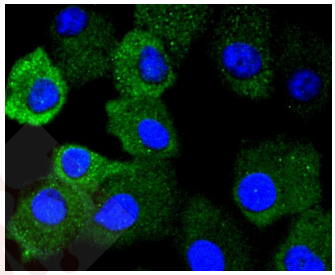
Applications

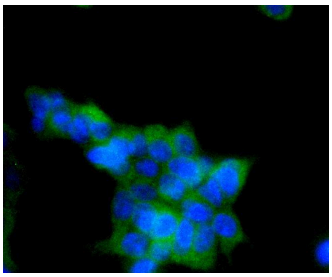
Verified Activity:

1. Western blot analysis of Phospho-AMPK alpha 1(S496) on 293T cells lysates using anti-Phospho-AMPK alpha 1 (S496) antibody at 1/1,000 dilution.
2. ICC staining Phospho-AMPK alpha 1 (S496) 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 Phospho-AMPK alpha 1 (S496) in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining Phospho-AMPK alpha 1 (S496) in 293T cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.









Application:	ICC/IF,IP,WB
Recommended	WB: 1:1000-5000; ICC/IF: 1:50-200

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:	A synthesized phosphopeptide: human AMPK alpha 1 around the phosphorylation site of Ser496
Antigen Species:	Human
Uniprot ID:	Q13131
Synonyms:	p-AMPKα (S496);AMPKa1;AMPK;AMPKalpha;Phospho-AMPKα (S496);AMPKα (p-Ser496);AMPKα (p-S496);AMPK alpha 1;AMPK1;p-AMPKα (Ser496)

Research Background

AMPK (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. AMPKα1 (5'-AMP-activated protein kinase catalytic subunit alpha-1), also known as PRKAA1, is a 559 amino acid protein that belongs to the CAMK Ser/Thr protein kinase family and protein kinase superfamily. Highly phosphorylated, AMPKα1 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 5p13.1.

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