

Phospho-AMPK alpha 1 (Ser496) Rabbit mAb

Catalog No: #52690



Package Size: #52690-1 50ul #52690-2 100ul

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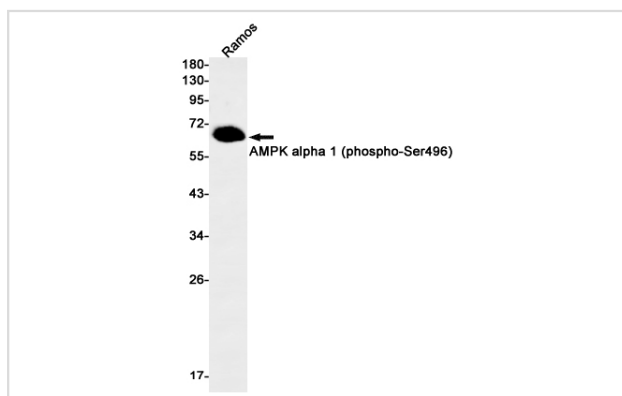
Description

Product Name	Phospho-AMPK alpha 1 (Ser496) Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	S01-3B7
Isotype	IgG
Purification	Affinity Purified
Applications	WB IF
Species Reactivity	Human
Immunogen Description	A synthetic phosphopeptide corresponding to residues surrounding Ser496 of human AMPK alpha 1
Conjugates	Unconjugated
Modification	Phosphorylated
Other Names	AMPK; AMPKa1
Accession No.	Swiss-Prot:Q13131GeneID:5562
Calculated MW	Calculated MW:64 kDa, Observed MW:64 kDa
Formulation	50nM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

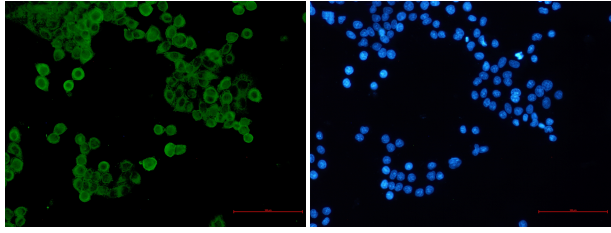
Application Details

WB: 1/10001/50

Images



Western blot detection of AMPK alpha 1 (phospho-Ser496) in Ramos cell lysates using AMPK alpha 1 (phospho-Ser496) Rabbit mAb(1:1000 diluted). Predicted band size:64kDa. Observed band size:64kDa.



Immunocytochemistry of AMPK alpha 1 (phospho-Ser496) (green) in hela using AMPK alpha 1 (phospho-Ser496) Rabbit mAb at dilution 1/50, and DAPI(blue)

Background

Catalytic subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism (PubMed:17307971, PubMed:17712357). In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation (PubMed:17307971, PubMed:17712357). AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators (PubMed:17307971, PubMed:17712357). Regulates lipid synthesis by phosphorylating and inactivating lipid metabolic enzymes such as ACACA, ACACB, GYS1, HMGCR and LIPE; regulates fatty acid and cholesterol synthesis by phosphorylating acetyl-CoA carboxylase (ACACA and ACACB) and hormone-sensitive lipase (LIPE) enzymes, respectively (By similarity). Promotes lipolysis of lipid droplets by mediating phosphorylation of isoform 1 of CHKA (CHKalpha2) (PubMed:34077757).

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