Product Name: KD-Validated Phospho-AMPK Alpha 1 (S496) Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb01490
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 64.0kDa

Antigen Information

Gene Name	PRKAA1
Alternative Names	PRKAA1; Protein Kinase AMP-Activated Catalytic Subunit Alpha 1; 5'-AMP-Activated Protein Kinase Catalytic Subunit Alpha-1; Protein Kinase, AMP-Activated, Alpha 1 Catalytic Subunit; Hydroxymethylglutaryl-CoA Reductase Kinase; Acetyl-CoA Carboxylase Kinase; Tau-Protein Kinase PRKAA1; AMPK Subunit Alpha-1; AMPK, Alpha, 1; ACACA Kinase; HMGCR Kinase; EC 2.7.11.1; AMPKa1; 5'-AMP-Activated Protein Kinase, Catalytic Alpha-1 Chain; AMP-Activated Protein Kinase, Catalytic, Alpha-1; AMP -Activate Kinase Alpha 1 Subunit; AMPK Alpha 1; EC 2.7.11.27; EC 2.7.11.31; EC 2.7.11.26; EC 2.7.11; AMPKA1; AMPK1; AMPK
Gene ID	5562.0
SwissProt ID	Q13131

Immunogen A synthesized peptide derived from human Phospho-AMPK alpha 1 (S496)

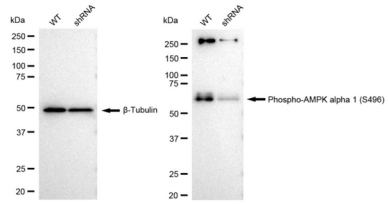
Background

The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]

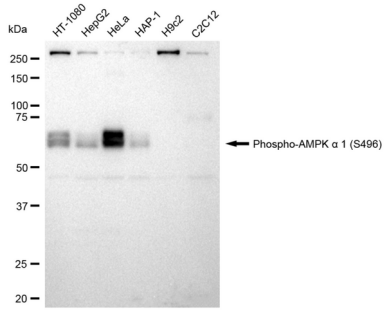
Research Area

Signal Transduction,Cardiovascular,Cancer,Metabolism

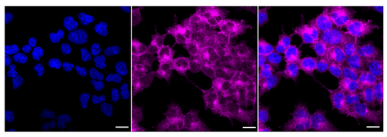
Image Data



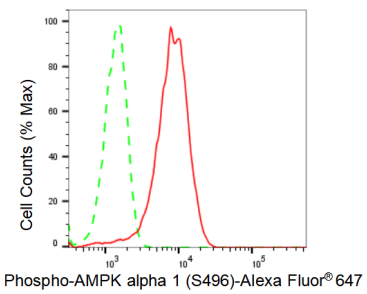
Western blotting analysis using Phospho-AMPK alpha 1 (S496) antibody (KVAb01490). Phospho-AMPK alpha 1 (S496) expression in wild type (WT) and phospho-AMPK alpha 1 (S496) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Phospho-AMPK alpha 1 (S496) antibody (KVAb01490, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Phospho-AMPK alpha 1 (S496) antibody (KVAb01490). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Phospho-AMPK alpha 1 (S496) antibody (KVAb01490, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HeLa cells with Phospho-AMPK alpha 1 (S496) antibody (KVAb01490, 1:1,000). Nuclei were stained blue with DAPI; Phospho-AMPK alpha 1 (S496) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Flow cytometric analysis of Phospho-AMPK alpha 1 (S496) expression in HeLa cells using Phospho-AMPK alpha 1 (S496) antibody (KVAb01490, 1:2,000). Green, isotype control; red, Phospho-AMPK alpha 1 (S496).