

Anti-Phospho-AMPK alpha1 (Ser496)PRKAA1 Antibody

Catalog Number: P00994

About PRKAA1

Responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. It also regulates cholesterol synthesis via phosphorylation and inactivation of hormone-sensitive lipase and hydroxymethylglutaryl-CoA reductase. Appears to act as a metabolic stress-sensing protein kinase switching off biosynthetic pathways when cellular ATP levels are depleted and when 5'-AMP rises in response to fuel limitation and/or hypoxia. This is a catalytic subunit.

Kim JE, et al. (2005) J Proteome Res. 4(4): 1339-1346.

Woods A, et al. (2003) J Biol Chem. 278(31): 28434-28442.

Overview

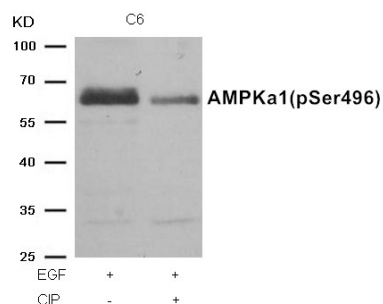
Product Name	Anti-Phospho-AMPK alpha1 (Ser496)PRKAA1 Antibody
Reactive Species	Human
Description	Boster Bio Anti-Phospho-AMPK alpha1 (Ser496)PRKAA1 Antibody (Catalog # P00994). Tested in WB, IHC, IF applications. This antibody reacts with Human.
Application	IF, IHC, WB
Clonality	Polyclonal
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q13131

Technical Details

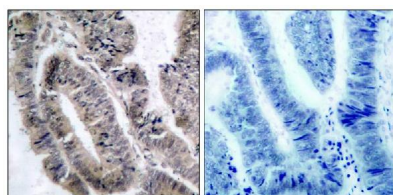
Immunogen	Peptide sequence around phosphorylation site of serine 496 (S-G- S(P)-V-S) derived from Human AMPKalpha1.
Predicted Reactive Species	Bovine, Chicken, Xenopus Laevis, Xenopus Tropicalis, Zebrafish
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Liquid

Concentration	1 mg/ml
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Predicted MW: 63kd</p> <p>Western blotting: 1:500~1:1000</p> <p>Immunohistochemistry: 1:50~1:100</p> <p>Immunofluorescence: 1:100~1:200</p>

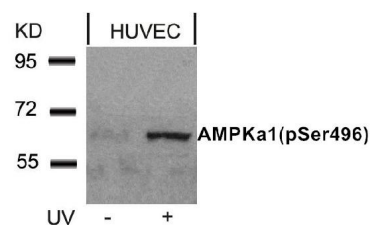
Anti-Phospho-AMPK alpha1 (Ser496)PRKAA1 Antibody (P00994) Images



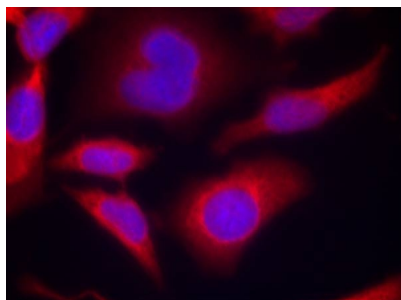
Western blot analysis of extracts from C6 cells, treated with EGF or calf intestinal phosphatase (CIP), using AMPK alpha1 (Phospho-Ser496) antibody P00994.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using AMPK alpha1 (Phospho-Ser496) antibody P00994 (left) or the same antibody preincubated with blocking peptide (right).



Western blot analysis of extracts from HUVEC cells untreated or treated with UV using AMPK alpha1 (Phospho-Ser496) antibody P00994.



Immunofluorescence staining of methanol-fixed Hela cells using AMPK alpha1(Phospho-Ser496) antibody P00994.

1 Publications Citing This Product

1. PubMed ID: 33537831, Zhang X,Zhang L,Chen Z,Li S,Che B, Wang N,Chen J,Xu C,Wei C.Exogenous spermine attenuates diabetic kidney injury in rats by inhibiting AMPK/mTOR signaling pathway.Int J Mol Med.2021 Mar;47(3):27.doi:10.3892/ijmm.2021.4860.Epub 2021 Feb 4.PMID:33537831.

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