AMPKα1/AMPKα2 Antibody

Catalog No: #21191

Package Size: #21191-1 50ul #21191-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	AMPKα1/AMPKα2 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB,IHC,IF,ELISA
Species Reactivity	Human,Mouse,Rat,Monkey,Bovine,Fish
Specificity	The antibody detects endogenous level of total AMPKa1/AMPKa2 protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa. 181~185/170~174 (L-R-T-S-C) derived from Human AMPKα1/AMPKα2.
Target Name	AMPKa1/AMPKa2
Other Names	AMPK, AMPKa1
Accession No.	Swiss-Prot: Q13131NCBI Protein: NP_006242.5 NP_006243.2
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

Application Details

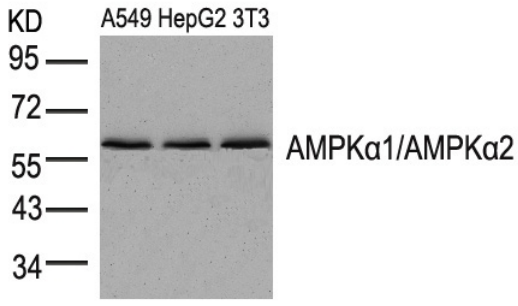
Predicted MW: 63kd

Western blotting: 1:500~1:1000

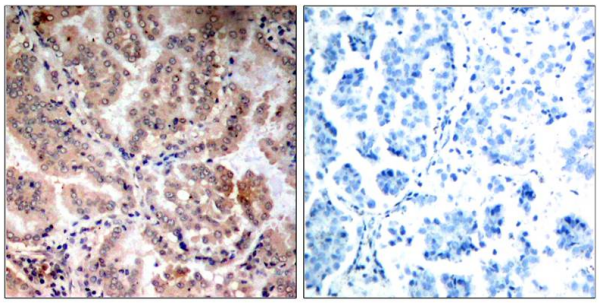
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

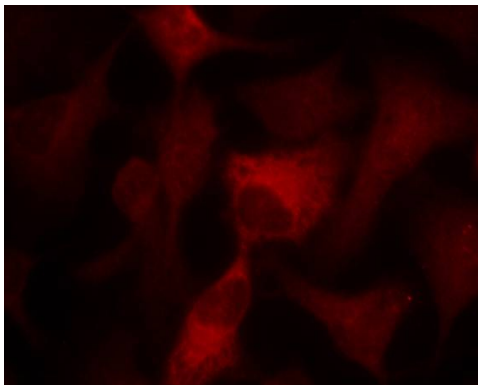
Images



Western blot analysis of extracts from A549, HepG2 and 3T3 cells using AMPKα1/AMPKα2 (Ab-183/172) Antibody #21191.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AMPKα1/AMPKα2 (Ab-183/172) Antibody #21191(left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence staining of methanol-fixed Hela cells using AMPKα1/AMPKα2 (Ab-183/172) Antibody #21191.

Background

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.

Hurley RL, et al. (2005) J Biol Chem. Aug 12; 280(32): 29060-29066

Woods A, et al. (2003) Curr Biol. Nov 11; 13(22): 2004-2008

Nielsen JN, et al. (2003) J Appl Physiol. Feb; 94(2): 631-641

Da Silva Xavier G, et al. (2000) Proc Natl Acad Sci U S A. Apr 11; 97(8): 4023-4028.

Published Papers

el at., Gemcitabine induces apoptosis and autophagy via the AMPK/mTOR signaling pathway in pancreatic cancer cells,In Biotechnol Appl Biochem. On 2018 Sep by Zhu J, Chen Y et al..PMID: 29575133, , (2018)

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el at., Metformin attenuates the D?galactose?induced aging process via the UPR through the AMPK/ERK1/2 signaling pathways.In Int J Mol Med on 2020 Mar by Cai H, Han B et al..PMID: 31922237, , (2020)

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el at., The Role of Sodium Hydrosulfide in Attenuating the Aging Process via PI3K/AKT and CaMKKε˚Y/AMPK Pathways.In Redox Biol on 2017 Aug by Xubo Chen ,Xueyan Zhao ,et al..PMID: 28499253, , (2017)

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el at., Hydrogen Sulphide Treatment Increases Insulin Sensitivity and Improves Oxidant Metabolism Through the CaMKKbeta-AMPK Pathway in PA-Induced IR C2C12 Cells.In Sci Rep on 2017 Oct 16 by Xubo Chen, Xueyan Zhao,et al..PMID:29038536, , (2017)

PMID:29038536

el at., FSTL1 as a Potential Mediator of Exercise-Induced Cardioprotection in Post-Myocardial Infarction Rats.In Sci Rep on 2016 Aug 26 by Yue Xi, Da-Wei Gong et al..PMID: 27561749, , (2016)

PMID:27561749

el at., Stanniocalcin-1 inhibits renal ischemia/reperfusion injury via an AMP-activated protein kinase-dependent pathway. In J Am Soc Nephrol on 2015 Feb by Luping Huang, Tatiana Belousova, et al..PMID: 25012175, , (2015)

PMID:25012175

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