

LKB1 (Phospho-Ser428) Antibody

Catalog No: #11980



Package Size: #11980-1 50ul #11980-2 100ul

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

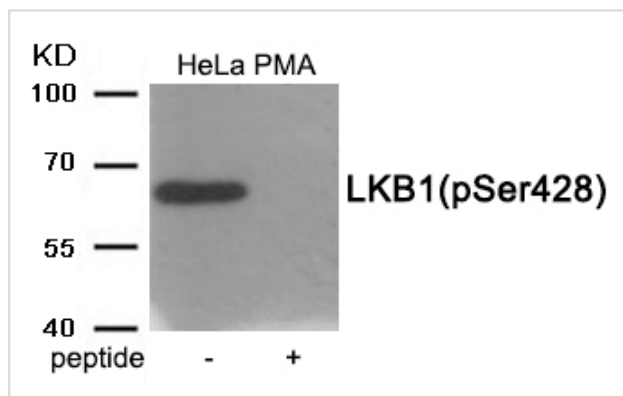
Description

Product Name	LKB1 (Phospho-Ser428) Antibody
Host Species	Rabbit
Clonality	Polyclonal
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.
Applications	WB
Species Reactivity	Hu
Specificity	The antibody detects endogenous level of LKB1 only when phosphorylated at serine 428.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine428 (R-L-S(p)-A-C) derived from Human LKB1 .
Target Name	LKB1
Modification	Phospho
Other Names	Protein kinase; CAMK group; CAMKL family; LKB subfamily;
Accession No.	Swiss-Prot#: Q15831; NCBI Gene#: 6794; NCBI Protein#: NP_000446.1
SDS-PAGE MW	65kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C/1 year

Application Details

Western blotting: 1:500~1:1000

Images



Western blot analysis of extracts from HeLa cells treated with PMA using Phospho-LKB1 (Ser428) antibody #11980. The lane on the right is treated with the antigen-specific peptide.

Background

Tumor suppressor serine/threonine-protein kinase that controls the activity of AMP-activated protein kinase (AMPK) family members, thereby playing a role in various processes such as cell metabolism, cell polarity, apoptosis and DNA damage response. Acts by phosphorylating the T-loop of AMPK family proteins, leading to promote their activity: phosphorylates PRKAA1, PRKAA2, BRSK1, BRSK2, MARK1, MARK2, MARK3, MARK4, NUAK1, NUAK2, SIK1, SIK2, SIK3 and SNRK but not MELK. Also phosphorylates non-AMPK family proteins such as STRADA and possibly p53/TP53. Acts as a key upstream regulator of AMPK by mediating phosphorylation and activation of AMPK catalytic subunits PRKAA1 and PRKAA2: it thereby regulates inhibition of signaling pathways that promote cell growth and proliferation when energy levels are low, glucose homeostasis in liver, activation of autophagy when cells undergo nutrient deprivation, B-cell differentiation in the germinal center in response to DNA damage. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton. Required for cortical neurons polarization by mediating phosphorylation and activation of BRSK1 and BRSK2, leading to axon initiation and specification. Involved in DNA damage response: interacts with p53/TP53 and recruited to the CDKN1A/WAF1 promoter to participate in transcription activation. Able to phosphorylate p53/TP53; the relevance of such result in vivo is however unclear and phosphorylation may be indirect and mediated by downstream STK11/LKB1 kinase NUAK1 Also acts as a mediator p53/TP53-dependent apoptosis via interaction with p53/TP53: translocates to mitochondrion during apoptosis and regulates p53/TP53-dependent apoptosis pathways.

Zhu H, et al. (2013) J Biol Chem 288, 16495-505. Seto SW, et al. (2013) PLoS One 8, e66404 . Rosario FJ, et al. (2012) J Physiol 590, 1495-509.

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