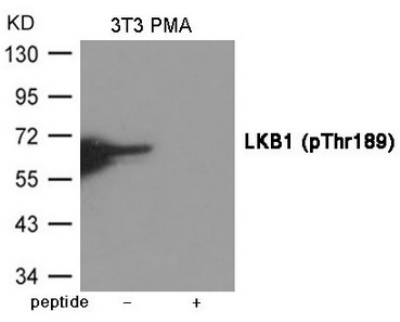
Phospho-STK11 (Thr189) Antibody

Product Code	CSB-PA164495
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q15831
Immunogen	Peptide sequence around phosphorylation site of Threonine 189(G-G-T(p)-L-K) derived from Human LKB1.
Raised In	Rabbit
Species Reactivity	Human,Mouse
Specificity	The antibody detects endogenous level of LKB1 only when phosphorylated at Threonine 189.
Tested Applications	ELISA,WB;WB:1:500-1:1000
Relevance	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.
Form	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.
Purification Method	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 chromatogramphy usi
Clonality	Polyclonal

Alias	PJS, LKB1, hLKB1
Product Type	Polyclonal Antibody
Species	Homo sapiens (Human)
Target Names	STK11

Image



Western blot analysis of extracts from 3T3 cells treated with PMA using LKB1 (Phospho-Thr189) Antibody.The lane on the right is treated with the antigen-specific peptide.

Product Modify	Phospho-Thr189