



Datasheet for ABIN687877
anti-LKB1 antibody (pThr363)



[Go to Product page](#)

2 Images

Overview

Quantity:	100 µL
Target:	LKB1 (STK11)
Binding Specificity:	pThr363
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This LKB1 antibody is un-conjugated
Application:	ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic phosphopeptide derived from human LKB1 around the phosphorylation site of Thr363 [IY(p-T)QD]
Isotype:	IgG
Cross-Reactivity:	Human
Predicted Reactivity:	Mouse,Rat,Dog,Cow,Horse,Chicken
Purification:	Purified by Protein A.

Target Details

Target:	LKB1 (STK11)
---------	--------------

Target Details

Alternative Name: [LKB1 \(STK11 Products\)](#)

Background: Synonyms: PJS, LKB1, hLKB1, Serine/threonine-protein kinase STK11, Liver kinase B1, Renal carcinoma antigen NY-REN-19, STK11

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, thus promoting 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, PTEN and possibly p53/TP53. Acts as a key upstream regulator of AMPK by mediating phosphorylation and activation of AMPK catalytic subunits PRKAA1 and PRKAA2 and thereby regulates processes including: 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, and 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 neuron 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 of p53/TP53-dependent apoptosis via interaction with p53/TP53: translocates to the mitochondrion during apoptosis and regulates p53/TP53-dependent apoptosis pathways. In vein endothelial cells, inhibits PI3K/Akt signaling activity and thus induces apoptosis in response to the oxidant peroxynitrite (in vitro). Isoform 2: Has a role in spermiogenesis.

Gene ID: 6794

UniProt: [Q15831](#)

Pathways: [AMPK Signaling](#), [Carbohydrate Homeostasis](#), [Regulation of Carbohydrate Metabolic Process](#), [Warburg Effect](#)

Application Details

Application Notes: ELISA 1:500-1000
IHC-P 1:200-400
IHC-F 1:100-500

Application Details

IF(IHC-P) 1:50-200

IF(IHC-F) 1:50-200

IF(ICC) 1:50-200

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

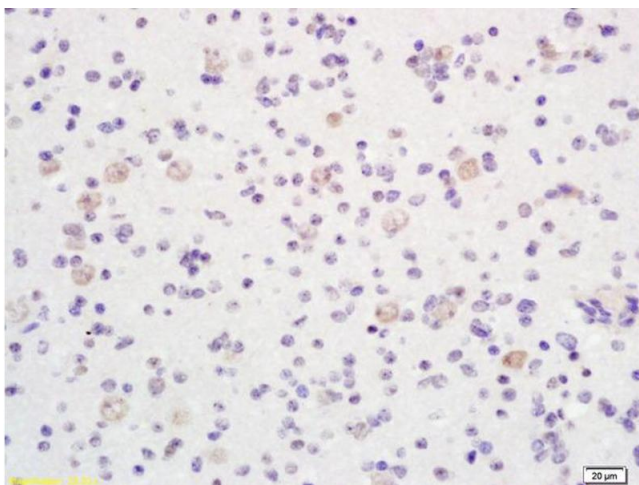
Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

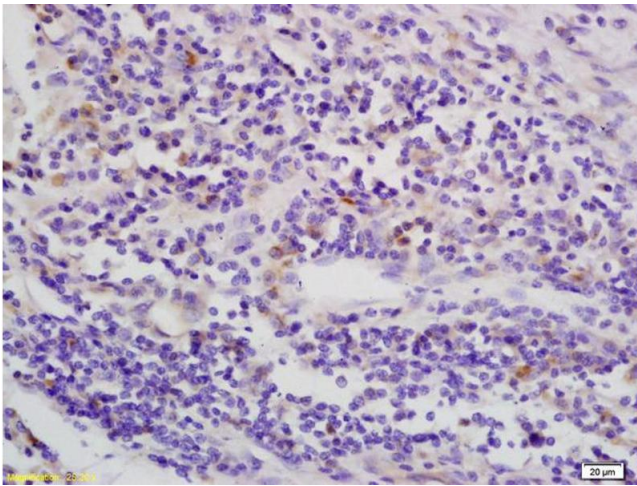
Expiry Date: 12 months

Images



Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded human brain labeled with Anti-phospho-LKB1 (Thr363) Polyclonal Antibody, Unconjugated (ABIN687877) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Immunohistochemistry

Image 2. Formalin-fixed and paraffin embedded human esophagus carcinoma labeled with Anti-phospho-LKB1 (Thr363) Polyclonal Antibody, Unconjugated (ABIN687877) at 1:200 followed by conjugation to the secondary antibody and DAB staining