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Datasheet for ABIN751573 anti-LKB1 antibody (AA 21-120)

1 Image

3 Publications



Overview

Quantity:	100 µL
Target:	LKB1 (STK11)
Binding Specificity:	AA 21-120
Reactivity:	Human, Mouse, Rat, Pig, Sheep
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This LKB1 antibody is un-conjugated
Application:	Western Blotting (WB), 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 peptide derived from human LKB1
lsotype:	lgG
Cross-Reactivity:	Human, Mouse, Pig, Rat, Sheep
Predicted Reactivity:	Dog,Cow,Horse,Chicken,Rabbit
Purification:	Purified by Protein A.
Target Details	

Target:

LKB1 (STK11)

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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). Regulates UV radiation-induced DNA damage
	response mediated by CDKN1A.
Gene ID:	6794
UniProt:	Q15831
Pathways:	AMPK Signaling, Carbohydrate Homeostasis, Regulation of Carbohydrate Metabolic Process,
	Warburg Effect
Application Details	
Application Notes	WB 1:300-5000
reproduon notes.	

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ELISA 1:500-1000

Restrictions:	For Research Use only	
	IF(ICC) 1:50-200	
	IF(IHC-F) 1:50-200	
	IF(IHC-P) 1:50-200	
	IHC-F 1:100-500	
	IHC-P 1:200-400	

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
Publications	
Publications Product cited in:	Zhang, Zhao, Zhang, Hao, Yu, Min, Li, Ma, Chen, Yi, Tang, Meng, Liu, Wang, Shen, Zhang: "
Publications Product cited in:	Zhang, Zhao, Zhang, Hao, Yu, Min, Li, Ma, Chen, Yi, Tang, Meng, Liu, Wang, Shen, Zhang: " Decrease in male mouse fertility by hydrogen sulfide and/or ammonia can Be inheritable." in:
Publications Product cited in:	Zhang, Zhao, Zhang, Hao, Yu, Min, Li, Ma, Chen, Yi, Tang, Meng, Liu, Wang, Shen, Zhang: " Decrease in male mouse fertility by hydrogen sulfide and/or ammonia can Be inheritable." in: Chemosphere , Vol. 194, pp. 147-157, (2018) (PubMed).
Publications Product cited in:	Zhang, Zhao, Zhang, Hao, Yu, Min, Li, Ma, Chen, Yi, Tang, Meng, Liu, Wang, Shen, Zhang: " Decrease in male mouse fertility by hydrogen sulfide and/or ammonia can Be inheritable." in: Chemosphere , Vol. 194, pp. 147-157, (2018) (PubMed). Wang, Zhao, Yu, Feng, Zhang, Kou, Chu, Cui, Li, Zhang, Shen, Min: "Regulation of steroid
Publications Product cited in:	Zhang, Zhao, Zhang, Hao, Yu, Min, Li, Ma, Chen, Yi, Tang, Meng, Liu, Wang, Shen, Zhang: " Decrease in male mouse fertility by hydrogen sulfide and/or ammonia can Be inheritable." in: Chemosphere , Vol. 194, pp. 147-157, (2018) (PubMed). Wang, Zhao, Yu, Feng, Zhang, Kou, Chu, Cui, Li, Zhang, Shen, Min: "Regulation of steroid hormones and energy status with cysteamine and its effect on spermatogenesis." in:
Publications Product cited in:	Zhang, Zhao, Zhang, Hao, Yu, Min, Li, Ma, Chen, Yi, Tang, Meng, Liu, Wang, Shen, Zhang: " Decrease in male mouse fertility by hydrogen sulfide and/or ammonia can Be inheritable." in: Chemosphere , Vol. 194, pp. 147-157, (2018) (PubMed). Wang, Zhao, Yu, Feng, Zhang, Kou, Chu, Cui, Li, Zhang, Shen, Min: "Regulation of steroid hormones and energy status with cysteamine and its effect on spermatogenesis." in: Toxicology and applied pharmacology , Vol. 313, pp. 149-158, (2016) (PubMed).
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Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded rat heart labeled with Anti-LKB1 Polyclonal Antibody, Unconjugated (ABIN751573) at 1:200 followed by conjugation to the secondary antibody and DAB staining.

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