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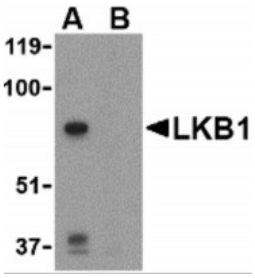
LKB1 Antibody

CATALOG NUMBER: 3987



Western blot analysis of LKB1 in PC-3 cell lysate with LKB1 antibody at 1 ug/mL in the (A) absence or (B) presence of blocking peptide.

Specifications

SPECIES REACTIVITY:	Human, Mouse
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Rat: (100%)
TESTED APPLICATIONS:	ELISA, WB
APPLICATIONS:	LKB1 antibody can be used for detection of LKB1 by Western blot at 1 ug/mL. LKB1 often migrates at a higher than expected molecular weight in SDS-PAGE.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1216 - PC-3 Cell Lysate
IMMUNOGEN:	LKB1 antibody was raised against a 15 amino acid synthetic peptide from near the carboxy terminus of human LKB1. The immunogen is located within amino acids 310 - 360 of LKB1.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	LKB1 Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	LKB1 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	LKB1 antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	LKB1 Antibody: PJS, LKB1, hLKB1, PJS, Liver kinase B1
ACCESSION NO.:	AAH19334
PROTEIN GI NO.:	17939640
OFFICIAL SYMBOL:	STK11
GENE ID:	6794

Background

BACKGROUND:	LKB1 Antibody: The LKB1 serine/threonine protein kinase was initially identified as a tumor suppressor gene mutated in human Peutz-Jeghers syndrome (PJS), a condition resulting in the growth of numerous intestinal polyps classed as hamartomas. LKB1 exists as a heterotrimeric complex with two other proteins, Ste20-related adaptor protein (STRAD) and MO25. Together, this complex can phsophorylate and activate the AMP-activate protein kinase (AMPK). Following AMPK activation by LKB1, AMPK then phosphorylates TSC1 and TSC2, key components of the metabolism-regulating TOR signaling pathway, which antagonizes the activation for the TOR pathway. LKB1 has also been shown to play a fundamental role in controlling the spatial orientation of structures required to maintain an ordered, polarized epithelium.
REFERENCES:	1) Hemminki A, Markie D, Tomlinson I, et al. A serine/threonine kinase gene defective in Peutz-Jeghers syndrome. Nature 1998; 391:184-7.
	2) Boudeau J, Baas AF, Deak M, et al. MO25α/β interact with STRADα/β enhancing their ability to bind, activate and localize LKB1 in the cytoplasm. EMBO J. 2003; 22:5102-14.
	3) Hawley SA, Boudeau J, Reid JL, et al. Complexes between the LKB1 tumor suppressor, STRADα/β and MO25α/β are upstream kinases in the AMP-activated protein kinase cascade. J. Biol. 2003; 2:28

FOR RESEARCH USE ONLY

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