



**Mouse (monoclonal)
Anti-LKB1
Unconjugated**

PRODUCT ANALYSIS SHEET

Catalog Number:	AHO1392
Lot Number:	See product label
Quantity/Volume:	100 µg/0.2 mL
Clone Number:	206R24
Isotype:	IgG2a κ (mouse)
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline, pH 7.2, with 1% bovine serum albumin.
Preservation:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified from ascites by affinity chromatography.
Immunogen:	Recombinant fragment of human LKB1 expressed in <i>E. coli</i> .
Specificity:	This antibody recognizes a 55 kDa protein identified as LKB1, a member of the serine/threonine kinase family. LKB1 is a tumor suppressor. Mutations in LKB1 gene are associated with Peutz-Jeghers syndrome, an autosomal dominant disorder characterized by the growth of polyps in the gastrointestinal tract, pigmented macules on the skin and mouth, and other neoplasms. LKB1 functions as a master upstream protein kinase, regulating AMPK-related kinases as well as AMPK. In vitro, LKB1 has been observed to directly phosphorylate threonine 172 of AMPKα, an event that is correlated with activation of this kinase. LKB1 has also been found to play a role in chromatin remodeling, cell cycle arrest, Wnt signaling, cell polarity, and energy metabolism.
Species Reactivity:	Human, mouse and rat.
Applications:	This antibody is suitable for use in Western blotting.
Suggested Working Dilutions:	For Western blotting, the recommended concentration is 1 µg/mL. The optimal antibody concentration should be determined for each specific application.
Recommended Positive Control:	Human HepG2 cells, mouse 3T3L1 cells and rat PC12 cells.
Storage:	Store at 2-8°C. For long term storage, aliquot into small volumes and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.

This product is for research use only. Not for use in diagnostic procedures.

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References:

Xie, Z., et al. (2006) Activation of protein kinase C zeta by peroxynitrite regulates LKB1-dependent AMP-activated protein kinase in cultured endothelial cells. *J. Biol. Chem.* 281(10):6366-6375.

Shaw, R.J., et al. (2005) The kinase LKB1 mediates glucose homeostasis in liver and therapeutic effects of metformin. *Science* 310:1642-1646.

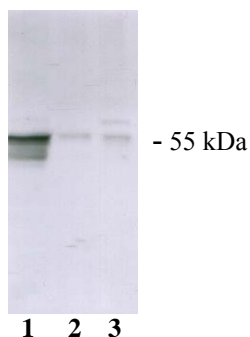
Mehenni, H., et al. (2005) LKB1 interacts with and phosphorylates PTEN: a functional link between two proteins involved in cancer predisposing syndromes. *Hum. Mol. Genet.* 14(15):2209-2219.

Launonen, V. (2005) Mutations in the human LKB1/STK11 gene. *Hum. Mutat.* 26(4):291-297.

Marignani, P.A. (2005) LKB1, the multitasking tumour suppressor kinase. *J. Clin. Pathol.* 58(1):15-19.

Related Products:

AMPK α 1/2 [pT172] Phosphorylation Site Specific Antibody	Cat. # 44-1150G
AMPK α monoclonal antibody	Cat. # AHO1332
AMPK β monoclonal antibody	Cat. # AHO1312

**Western Blot Analysis**

Proteins from cell extracts of human HepG2 cells (lane 1), mouse 3T3L1 cells (lane 2), and rat PC12 cells (lane 3) were resolved by SDS-PAGE and transferred to PVDF. The membranes were incubated with this LKB1 monoclonal antibody (clone 206R24) at a concentration of 1 μ g/mL for two hours at room temperature. After washing, the membranes were incubated with a goat F(ab')₂ anti-mouse IgG alkaline phosphatase conjugated antibody (Cat. # AMI4405) at a 1:2000 dilution. Bands were detected with CDP-substrate using the WesternStarTM method (Tropix) and Kodak BioMax film.

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