## RD SYSTEMS a biotechne brand

## Human LKB1/STK11 Antibody

Monoclonal Mouse IgG<sub>2A</sub> Clone # 873502 Catalog Number: MAB8055

DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human LKB1/STK11 in direct ELISAs and Western blots.	
Source	Monoclonal Mouse IgG <sub>2A</sub> Clone # 873502	
Purification	Protein A or G purified from hybridoma culture supernatant	
Immunogen	<i>E. coli</i> -derived recombinant human LKB1/STK11 Met1-Gln433 Accession # Q15831	
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.	

#### APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below
Knockout Validated	LKB1/STK11 is specifically detected in HEK293T human embryonic kidney parental cell line but is not detectable in LKB1/STK11 knockout HEK293T cell line.	

#### DATA



Detection of Human LKB1/STK11 by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line, HepG2 human hepatocellular carcinoma cell line, and K562 human chronic myelogenous leukemia cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human LKB1/STK11 Monoclonal Antibody (Catalog # MAB8055) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for LKB1/STK11 at approximately 55 KDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

#### Knockout Validated



#### Western Blot Shows Human LKB1/STK11 Specificity by Using Knockout Cell Line. Western blot shows lysates of HEK293T human embryonic kidney parental cell line and LKB1/STK11 knockout HEK293T cell line (KO). PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human LKB1/STK11 Monoclonal Antibody (Catalog # MAB8055) followed by HRPconjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for LKB1/STK11 at approximately 55 kDa (as indicated) in the parental HEK293T cell line, but is not detectable in knockout HEK293T cell line GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

# PREPARATION AND STORAGE Reconstitution Reconstitute at 0.5 mg/mL in sterile PBS. Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. \*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles. • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions.

#### BACKGROUND

LKB1, also known as STK11 and JBS, is a 55 kDa member of the CAMK Ser/Thr protein kinase family. It is ubiquitously expressed, and considered to be a tumor suppressor. LKB1 is both nuclear and cytoplasmic, and appears to contribute to cell polarization, G1 cell cycle arrest and Wnt signaling. It is known to complex with STRAD and CAB39/MO25, and phosphorylate PTEN plus p53. Human LKB1 is 433 amino acids (aa) in length. It contains a protein kinase domain (aa 49-309) and a prenylation motif (CysLysGlnGln) over aa 430-433. Phosphorylation on Ser428 promotes the ability of LKB1 to suppress G361 cell growth. There are two potential isoforms of LKB1. One shows a nine aa insertion after Tyr126, while another shows a 34 aa substitution for aa 371-433. Human LKB1 shares 90% aa sequence identity with mouse and rat LKB1.

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