

#3047  
Store at -20C**LKB1 (D60C5) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S	H M R Mk	Endogenous	54	Rabbit IgG	#Q15831	6794

**Product Usage Information****Application**

Western Blotting  
Simple Western™

**Dilution**

1:1000  
1:10 - 1:50

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

LKB1 (D60C5) Rabbit mAb detects endogenous levels of total LKB1 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with an LKB1 partial fusion protein.

**Background**

LKB1 (STK11) is a serine/threonine kinase and tumor suppressor that helps control cell structure, apoptosis and energy homeostasis through regulation of numerous downstream kinases (1,2). A cytosolic protein complex comprised of LKB1, putative kinase STRAD, and the MO25 scaffold protein, activates both AMP-activated protein kinase (AMPK) and several AMPK-related kinases (3). AMPK plays a predominant role as the master regulator of cellular energy homeostasis, controlling downstream effectors that regulate cell growth and apoptosis in response to cellular ATP concentrations (4). LKB1 appears to be phosphorylated in cells at several sites, including human LKB1 at Ser31/325/428 and Thr189/336/363 (5).

Mutation in the corresponding LKB1 gene causes Peutz-Jeghers syndrome (PJS), an autosomal dominant disorder characterized by benign GI tract polyps and dark skin lesions of the mouth, hands, and feet (6). A variety of other LKB1 gene mutations have been associated with the formation of sporadic cancers in several tissues (7).

**Background References**

1. Baas, A.F. et al. (2004) *Trends Cell Biol* 14, 312-9.
2. Marignani, P.A. (2005) *J Clin Pathol* 58, 15-9.
3. Lizcano, J.M. et al. (2004) *EMBO J* 23, 833-43.
4. Hardie, D.G. (2004) *J Cell Sci* 117, 5479-87.
5. Sapkota, G.P. et al. (2002) *Biochem J* 362, 481-90.
6. Jenne, D.E. et al. (1998) *Nat Genet* 18, 38-43.
7. Sanchez-Cespedes, M. (2007) *Oncogene* 26, 7825-32.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **W-S:** Simple Western™

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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