

#13031 Store at -20C

LKB1 (D60C5F10) Rabbit mAb (IHC Formulated)



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: IHC-P	Reactivity: H M Mk	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #Q15831	Entrez-Gene Id: 6794
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Product Usage Information	Application Immunohistochemistry (Paraffin)	Dilution 1:250
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.	
	For a carrier free (BSA and azide free) version of this product see product #28193.	
Specificity / Sensitivity	LKB1 (D60C5F10) Rabbit mAb (IHC Formulated) recognizes endogenous levels of total LKB1 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the carboxy terminus of human LKB1 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	<ol style="list-style-type: none"> 1. Baas, A.F. et al. (2004) <i>Trends Cell Biol</i> 14, 312-9. 2. Marignani, P.A. (2005) <i>J Clin Pathol</i> 58, 15-9. 3. Lizcano, J.M. et al. (2004) <i>EMBO J</i> 23, 833-43. 4. Hardie, D.G. (2004) <i>J Cell Sci</i> 117, 5479-87. 5. Sapkota, G.P. et al. (2002) <i>Biochem J</i> 362, 481-90. 6. Jenne, D.E. et al. (1998) <i>Nat Genet</i> 18, 38-43. 7. Sanchez-Cespedes, M. (2007) <i>Oncogene</i> 26, 7825-32. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	IHC-P: Immunohistochemistry (Paraffin)
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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