LKB1 (D60C5F10) Rabbit mAb (IHC Formulated)



Orders: 877-616-CELL (2355)

orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com

cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications: Reactivity: Sensitivity: Source/Isotype: **UniProt ID:** Entrez-Gene Id: IHC-P H M Mk Endogenous Rabbit IgG #Q15831 6794 **Product Usage Application** Dilution Information Immunohistochemistry (Paraffin) 1:250 Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than **Storage** 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. LKB1 (D60C5F10) Rabbit mAb (IHC Formulated) recognizes endogenous levels of total LKB1 protein. Specificity / Sensitivity

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

- 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).

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

Trademarks and Patents Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. SignalStain is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more

information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.