3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-DLC1 (C-terminal)
produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200352**

Product Description
Anti-DLC1 (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the C-terminal of human DLC1 (GeneID: 10395), conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-DLC1 (C-terminal) specifically recognizes human DLC1. The antibody may be used in several immunochemical techniques in including immunoblotting (~200 kDa). Detection of the DLC1 band by immunoblotting is specifically inhibited by the DLC1 immunizing peptide.

DLC1 (deleted in liver cancer 1, also known as ARHGAP7, STARD12, p122RhoGAP), is a candidate tumor suppressor gene, originally isolated from human hepatocellular carcinoma (HCC).[1,2] DLC1 is mapped to chromosome 8p21.3-22, a region thought to harbor tumor suppressor genes and recurrently deleted in HCC and other solid tumors. *DLC1* gene is widely expressed in normal human tissues, but is frequently underexpressed in HCC and a variety of cancer types.[2,3] DLC1 protein contains three major functional domains, sterile α-motif (SAM), Rho GTPase-activating protein (RhoGAP), and steroidogenic acute regulatory-related lipid transfer (START) domains. The RhoGAP activity of DLC1 has been shown to be associated with its growth-suppressive effect on HCC cell lines. DLC1 interacts with tensin2, a focal adhesion protein, localized at the end of stress fibers, which plays key roles in cytoskeletal organization and cell signaling.[4] It has been shown that the N-terminal region of DLC1 localizes to focal adhesions by binding to SH2 domains on tensins. Mutations in the focal adhesion targeting (FAT) region of DLC1 reduces its expression and function.[5] The focal adhesion localization of DLC1 is essential for cell motility and morphology and is critical for the tumor suppressor activity of DLC1.[3,5,6]

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~1.5 mg/mL

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile
Immunoblotting: a working concentration of 1-2 µg/mL is recommended using lysates of HEK-293T cells over-expressing human DLC1.

Immunoprecipitation: A working amount of 5-10 µg is recommended using lysates of HEK-293T cells over-expressing human DLC1.

Indirect Immunofluorescence: a working concentration of 0.3-0.6 µg/mL is recommended using HEK-293T cells over-expressing human DLC1.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References
1. Xue, W., et al., *Genes Dev.*, **22**, 1439-1444 (2008).
2. Kim, T.Y., et al., *Cancer Metastasis Rev.,* **28**, 77-83 (2009).
3. Yuan, B.Z., et al., *Oncogene,* **23**, 1405-1411 (2004).
4. Yam, J.W., et al., *Cancer Res.,* **66**, 8367-8372 (2006).
5. Liao, Y.C., et al., *Cancer Res.,* **68**, 7718-7722 (2008).
6. Kawai, K., et al., *Genes Cells,* **14**, 227-241 (2009).

ER,RC,KAA,PHC 10/11-1