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Product Information

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

Catalog Number **SAB4200490**

Product Description
Anti-DLC1 (C-terminal region) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence near the C-terminal of human DLC1 isoform 1 (GeneID: 10395), conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-DLC1 (C-terminal region) specifically recognizes human DLC1. The antibody may be used in several immunochemical techniques in including immunoblotting (~200 kDa), immunoprecipitation, immunofluorescence and immunohistochemistry. 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 under-expressed 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: ~1.0 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 1.5-3 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.

Immunofluorescence: a working concentration of 1-2 µg/mL is recommended using MDBK cells.

Immunohistochemistry: A working concentration of 10-20 µg/mL is recommended using formalin-fixed paraffin embedded human colon.

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).

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