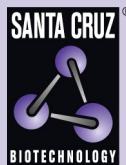


# DLC-1 (H-260): sc-32931



The Power to Question

## BACKGROUND

Loss of expression of deleted in liver cancer 1 (DLC-1) protein correlates strongly with cancerous phenotype in a large number of human tissues, such as breast, liver, colon and prostate, and generally occurs due to genomic deletion or aberrant promotor methylation. The gene encoding DLC-1 maps to human chromosome 8p22, a region presumed to harbor tumor suppressor genes based on its frequent mutation in a large number of cancers. DLC-1 localizes to the cytoplasm and restored expression leads to caspase-3 mediated apoptosis, and inhibition of cell growth and invasiveness.

## REFERENCES

- Yuan, B.Z., et al. 1998. Cloning, characterization, and chromosomal localization of a gene frequently deleted in human liver cancer (DLC-1) homologous to rat RhoGAP. *Cancer Res.* 58: 2196-2199.
- Park, S.W., et al. 2003. DNA variants of DLC-1, a candidate tumor suppressor gene in human hepatocellular carcinoma. *Int. J. Oncol.* 23: 133-137.
- Yuan, B.Z., et al. 2003. DLC-1 gene inhibits human breast cancer cell growth and *in vivo* tumorigenicity. *Oncogene* 22: 445-450.
- Zhou, X., et al. 2004. Restoration of DLC-1 gene expression induces apoptosis and inhibits both cell growth and tumorigenicity in human hepatocellular carcinoma cells. *Oncogene* 23: 1308-1313.
- Yuan, B.Z., et al. 2004. DLC-1 operates as a tumor suppressor gene in human non-small-cell lung carcinomas. *Oncogene* 23: 1405-1411.
- Syed, V., et al. 2005. Identification of ATF-3, caveolin-1, DLC-1, and NM23-H2 as putative antitumorigenic, progesterone-regulated genes for ovarian cancer cells by gene profiling. *Oncogene* 24: 1774-1787.

## CHROMOSOMAL LOCATION

Genetic locus: DLC1 (human) mapping to 8p22; Dlc1 (mouse) mapping to 8 A4.

## SOURCE

DLC-1 (H-260) is a rabbit polyclonal antibody raised against amino acids 111-370 mapping within an internal region of DLC-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4°C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

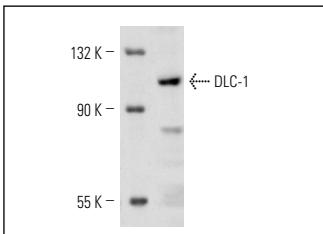
DLC-1 (H-260) is recommended for detection of DLC-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DLC-1 siRNA (h): sc-43725, DLC-1 siRNA (m): sc-72134, DLC-1 shRNA Plasmid (h): sc-43725-SH, DLC-1 shRNA Plasmid (m): sc-72134-SH, DLC-1 shRNA (h) Lentiviral Particles: sc-43725-V and DLC-1 shRNA (m) Lentiviral Particles: sc-72134-V.

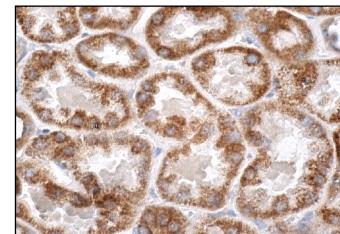
Molecular Weight of DLC-1: 123 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, MCF7 whole cell lysate: sc-2206 or KNRK whole cell lysate: sc-2214.

## DATA



DLC-1 (H-260): sc-32931. Western blot analysis of DLC-1 expression in c4 whole cell lysate.



DLC-1 (H-260): sc-32931. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

## SELECT PRODUCT CITATIONS

- Yang, X.Y., et al. 2009. p120Ras-GAP binds the DLC1 Rho-GAP tumor suppressor protein and inhibits its RhoA GTPase and growth-suppressing activities. *Oncogene* 28: 1401-1409.
- Sabbir, M.G., et al. 2010. Identification and characterization of Dlc1 isoforms in the mouse and study of the biological function of a single gene trapped isoform. *BMC Biol.* 8: 17.
- Yang, X., et al. 2011. DLC1 interaction with S100A10 mediates inhibition of *in vitro* cell invasion and tumorigenicity of lung cancer cells through a RhoGAP-independent mechanism. *Cancer Res.* 71: 2916-2925.
- Luo, H.W., et al. 2011. The intracellular stability of DLC1 is regulated by the 26S proteasome in human hepatocellular carcinoma cell line Hep3B. *Biochem. Biophys. Res. Commun.* 404: 279-283.



Try **DLC-1 (C-12): sc-271915**, our highly recommended monoclonal alternative to DLC-1 (H-260).