

DLC-1 (C-12): sc-271915



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 promoter 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.

CHROMOSOMAL LOCATION

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

SOURCE

DLC-1 (C-12) is a mouse monoclonal antibody raised against amino acids 111-370 mapping within an internal region of DLC-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DLC-1 (C-12) is available conjugated to agarose (sc-271915 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271915 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271915 PE), fluorescein (sc-271915 FITC), Alexa Fluor® 488 (sc-271915 AF488), Alexa Fluor® 546 (sc-271915 AF546), Alexa Fluor® 594 (sc-271915 AF594) or Alexa Fluor® 647 (sc-271915 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271915 AF680) or Alexa Fluor® 790 (sc-271915 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

DLC-1 (C-12) is recommended for detection of DLC-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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.

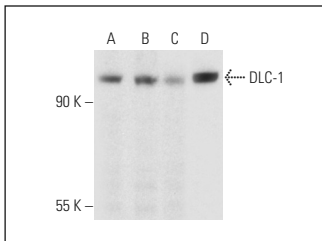
Molecular Weight of DLC-1: 123 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, SK-BR-3 cell lysate: sc-2218 or KNRK whole cell lysate: sc-2214.

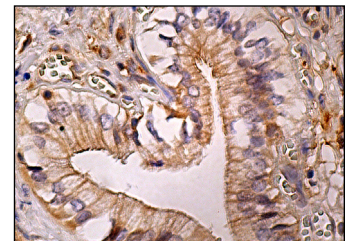
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



DLC-1 (C-12): sc-271915. Western blot analysis of DLC-1 expression in MCF7 (A), ES-2 (B), SK-BR-3 (C) and KNRK (D) whole cell lysates.



DLC-1 (C-12): sc-271915. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Hitkova, I., et al. 2013. Caveolin-1 protects B6129 mice against *Helicobacter pylori* gastritis. *PLoS Pathog.* 9: e1003251.
- Bravo-Cordero, J.J., et al. 2013. Spatial regulation of RhoC activity defines protrusion formation in migrating cells. *J. Cell Sci.* 126: 3356-3369.
- Cao, X., et al. 2015. A phosphorylation switch controls the spatiotemporal activation of Rho GTPases in directional cell migration. *Nat. Commun.* 6: 7721.
- Goepfert, B., et al. 2016. Cadherin-6 is a putative tumor suppressor and target of epigenetically dysregulated miR-429 in cholangiocarcinoma. *Epigenetics* 11: 780-790.
- Wu, Z., et al. 2017. Downregulation of microRNA-301a inhibited proliferation, migration and invasion of non-small cell lung cancer by directly targeting DLC1. *Oncol. Lett.* 14: 6017-6023.
- Haining, A.W.M., et al. 2018. Mechanotransduction in talin through the interaction of the R8 domain with DLC1. *PLoS Biol.* 16: e2005599.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.