SANTA CRUZ BIOTECHNOLOGY, INC.

DLEC1 (C-1): sc-390903

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Many tumor supressor genes are thought to reside on chromosome 3p because one copy of this region is frequently found to be deleted in several carcinomas. The gene encoding DLEC1 (deleted in lung and esophageal cancer protein 1), a 1,755 amino acid cytoplasmic protein, is located within a chromosomal region that is subject to abberations in many cancer cell lines and primary cancers. Reduced invasiveness and suppression of cell growth occurs when DLEC1 cDNA is introduced into a variety of cancer cell lines, suggesting that defects in the transcription of DLEC1 is a cause of lung, esophageal, and renal cancers. Evidence also suggests that methylation of the DLEC1 promoter may be associated with a poor prognosis in non-small cell lung carcinoma and nasopharyngeal carcinoma. With highest expression in kidney and prostate, there are three isoforms of DLEC1 that exist as a result of alternative splicing events.

REFERENCES

1. Daigo, Y., et al. 1999. Molecular cloning of a candidate tumor suppressor gene, DLC1, from chromosome 3p21.3. Cancer Res. 59: 1966-1972.
2. Peng, H., et al. 2002. Study of DLC1 gene expression in nasopharyngeal carcinoma. Zhonghua Er Bi Yan Hou Ke Za Zhi 37: 454-457.
3. 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.
4. Kwong, J., et al. 2006. Candidate tumor-suppressor gene DLEC1 is frequently downregulated by promoter hypermethylation and histone hypoacetylation in human epithelial ovarian cancer. Neoplasia 8: 268-278.
5. Kwong, J., et al. 2007. Epigenetic inactivation of the deleted in lung and esophageal cancer 1 gene in nasopharyngeal carcinoma. Genes Chromosomes Cancer 46: 171-180.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 604050. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Ayadi, W., et al. 2008. Aberrant methylation of p16, DLEC1, BLU and E-cadherin gene promoters in nasopharyngeal carcinoma biopsies from Tunisian patients. Anticancer Res. 28: 2161-2167.
8. Seng, T.J., et al. 2008. DLEC1 and MLH1 promoter methylation are associated with poor prognosis in non-small cell lung carcinoma. Br. J. Cancer 99: 375-382.

CHROMOSOMAL LOCATION

Genetic locus: DLEC1 (human) mapping to 3p22.2; Dlec1 (mouse) mapping to 9 F3.

SOURCE

DLEC1 (C-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 301-326 within an internal region of DLEC1 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390903 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DLEC1 (C-1) is recommended for detection of DLEC1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DLEC1 siRNA (h): sc-77908, DLEC1 siRNA (m): sc-143053, DLEC1 shRNA Plasmid (h): sc-77908-SH, DLEC1 shRNA Plasmid (m): sc-143053-SH, DLEC1 shRNA (h) Lentiviral Particles: sc-77908-V and DLEC1 shRNA (m) Lentiviral Particles: sc-143053-V.

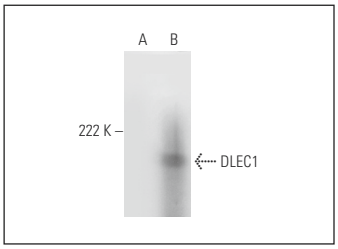
Molecular Weight of DLEC1: 196 kDa.

Positive Controls: DLEC1 (h): 293T Lysate: sc-372310.

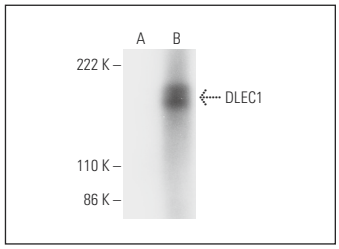
RECOMMENDED SUPPORT REAGENTS

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.

DATA



DLEC1 (C-1): sc-390903. Western blot analysis of DLEC1 expression in non-transfected: sc-117752 (**A**) and human DLEC1 transfected: sc-372310 (**B**) 293T whole cell lysates.



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STORAGE

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