

DICE1 (H-6): sc-376524

BACKGROUND

DICE1 (deleted in cancer 1) is a protein mapping to chromosome 13q14.3, which appears to be a tumor suppressor gene in non-small cell lung carcinoma. Expression of DICE1 is lost or downregulated in most non-small lung carcinomas compared to normal lung tissue. This is most likely due to a loss of heterozygosity (LOH) of chromosome 13, which is prone to deletions and rearrangements in human lung cancers. The DICE1 gene is extremely homologous to the mouse protein, DBI-1, at the carboxy terminus. DBI-1, when expressed at high levels, interferes with the mitogenic response to IGF-1. Both DICE1 and DBI-1 contain the highly conserved DEAD-box motif, which suggests that these proteins are involved in critical aspects of cellular function and regulation.

CHROMOSOMAL LOCATION

Genetic locus: INTS6 (human) mapping to 13q14.3; Ints6 (mouse) mapping to 14 D1.

SOURCE

DICE1 (H-6) is a mouse monoclonal antibody raised against amino acids 713-826 mapping near the C-terminus of DICE1 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.

DICE1 (H-6) is available conjugated to agarose (sc-376524 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376524 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376524 PE), fluorescein (sc-376524 FITC), Alexa Fluor® 488 (sc-376524 AF488), Alexa Fluor® 546 (sc-376524 AF546), Alexa Fluor® 594 (sc-376524 AF594) or Alexa Fluor® 647 (sc-376524 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376524 AF680) or Alexa Fluor® 790 (sc-376524 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

DICE1 (H-6) is recommended for detection of DICE1 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 DICE1 siRNA (h): sc-45802, DICE1 siRNA (m): sc-45803, DICE1 shRNA Plasmid (h): sc-45802-SH, DICE1 shRNA Plasmid (m): sc-45803-SH, DICE1 shRNA (h) Lentiviral Particles: sc-45802-V and DICE1 shRNA (m) Lentiviral Particles: sc-45803-V.

Molecular Weight of DICE1: 100 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

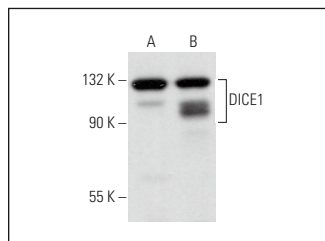
RESEARCH USE

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

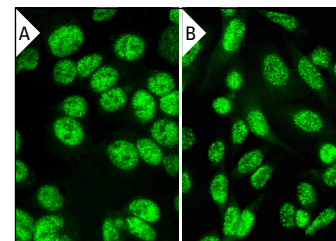
STORAGE

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

DATA



DICE1 (H-6): sc-376524. Western blot analysis of DICE1 expression in Hep G2 (A) and HeLa (B) whole cell lysates.



DICE1 (H-6): sc-376524. Immunofluorescence staining of formalin-fixed Hep G2 (A) and SW480 (B) cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Lei, T., et al. 2013. Targeting of DICE1 tumor suppressor by Epstein-Barr virus-encoded miR-BART3* microRNA in nasopharyngeal carcinoma. *Int. J. Cancer* 133: 79-87.
2. Kang, D., et al. 2015. EBV BART microRNAs target multiple pro-apoptotic cellular genes to promote epithelial cell survival. *PLoS Pathog.* 11: e1004979.
3. Barbieri, E., et al. 2018. Targeted enhancer activation by a subunit of the integrator complex. *Mol. Cell* 71: 103-116.e7.
4. Chen, H., et al. 2018. Small RNA-induced INTS6 gene up-regulation suppresses castration-resistant prostate cancer cells by regulating β -catenin signaling. *Cell Cycle* 17: 1602-1613.
5. Vervoort, S.J., et al. 2021. The PP2A-integrator-CDK9 axis fine-tunes transcription and can be targeted therapeutically in cancer. *Cell* 184: 3143-3162.e32.
6. Hu, S., et al. 2021. SPT5 stabilizes RNA polymerase II, orchestrates transcription cycles, and maintains the enhancer landscape. *Mol. Cell* 81: 4425-4439.e6.
7. Pan, J., et al. 2022. Sparse dictionary learning recovers pleiotropy from human cell fitness screens. *Cell Syst.* 13: 286-303.e10.
8. Ohe, S., et al. 2022. ERK-mediated NELF-A phosphorylation promotes transcription elongation of immediate-early genes by releasing promoter-proximal pausing of RNA polymerase II. *Nat. Commun.* 13: 7476.
9. Offley, S.R., et al. 2023. A combinatorial approach to uncover an additional Integrator subunit. *Cell Rep.* 42: 112244.

PROTOCOLS

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

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