

## DICE1 (C-20): sc-5878

### BACKGROUND

DICE1 (deleted in cancer 1) is a protein mapping to chromosome 13q14, 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.

### REFERENCES

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- Hoff, H.B., 3rd., et al. 1998. DBI-1, a novel gene related to the notch family, modulates mitogenic responses to Insulin-like growth factor 1. *Exp. Cell Res.* 238: 359-370.
- Wieland, I., et al. 1999. Isolation of DICE1: A gene frequently affected by LOH and downregulated in lung carcinomas. *Oncogene* 18: 4530-4537.
- Kohno, T., et al. 1999. How many tumor suppressor genes are involved in human lung carcinogenesis? *Carcinogenesis* 20: 1403-1410.
- Irion, U., et al. 1999. Developmental and cell biological functions of the *Drosophila* DEAD-box protein abstract. *Curr. Biol.* 9: 1373-1381.
- Hagberg, H., et al. 2004. PARP-1 gene disruption in mice preferentially protects males from perinatal brain injury. *J. Neurochem.* 90: 1068-1075.
- Martin-Oliva, D., et al. 2004. Crosstalk between PARP-1 and NFκB modulates the promotion of skin neoplasia. *Oncogene* 23: 5275-5283.

### CHROMOSOMAL LOCATION

Genetic locus: Ints6 (mouse) mapping to 14 C3.

### SOURCE

DICE1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DICE1 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.

Blocking peptide available for competition studies, sc-5878 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

DICE1 (C-20) is recommended for detection of DICE1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

DICE1 (C-20) is also recommended for detection of DICE1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DICE1 siRNA (m): sc-45803, DICE1 shRNA Plasmid (m): sc-45803-SH and DICE1 shRNA (m) Lentiviral Particles: sc-45803-V.

Molecular Weight of DICE1: 100 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### 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.