SANTA CRUZ BIOTECHNOLOGY, INC.

DICE1 (V-20): sc-5877

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. Hensel, C.H., et al. 1990. Altered structure and expression of the human retinoblastoma susceptibility gene in small cell lung cancer Cancer Res. 50: 3067-3072.
2. 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.
3. Wieland, I., et al. 1999. Isolation of DICE1: A gene frequently affected by LOH and downregulated in lung carcinomas. Oncogene 18: 4530-4537.
4. Kohno, T., et al. 1999. How many tumor suppressor genes are involved in human lung carcinogenesis? Carcinogenesis 20: 1403-1410.
5. Irion, U., et al. 1999. Developmental and cell biological functions of the *Drosophila* DEAD-box protein abstrakt. Curr. Biol. 9: 1373-1381.
6. Hagberg, H., et al. 2004. PARP-1 gene disruption in mice preferentially protects males from perinatal brain injury. J. Neurochem. 90: 1068-1075.
7. 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 (human) mapping to 13q14.3; Ints6 (mouse) mapping to 14 C3.

SOURCE

DICE1 (V-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-5877 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 (V-20) is recommended for detection of DICE1 of mouse, rat and human 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 (V-20) is also recommended for detection of DICE1 in additional species, including equine, canine, bovine, porcine and avian.

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.

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 or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **DICE1 (H-6): sc-376524** or **DICE1 (LL7): sc-101232**, our highly recommended monoclonal alternatives to DICE1 (V-20).