

RIZ (33AT1045): sc-130256

BACKGROUND

The Rb-interacting zinc-finger gene RIZ1 (also known as G3B or MTB-Zf) is commonly mutated in colorectal, gastric and endometrial cancers and has demonstrated a capacity to induce cell cycle arrest and apoptosis. RIZ is a candidate tumor suppressor gene on 1p36.21, a region frequently rearranged in a wide variety of human tumors. RIZ is the founding member of the PR-domain family of zinc-finger genes. Two products are produced from the RIZ locus which differ by the presence or absence of the PR domain; the PR-plus, RIZ1, is commonly lost or underexpressed whereas the PR-minus, RIZ2, is always present in cancer cells. This yin-yang imbalance in the amount of the two RIZ products may be an important cause of malignancy.

REFERENCES

- Medici, N., et al. 1999. Identification of a DNA binding protein cooperating with estrogen receptor as RIZ (retinoblastoma interacting zinc finger protein). *Biochem. Biophys. Res. Commun.* 264: 983-989.
- Huang, S. 1999. The retinoblastoma protein-interacting zinc-finger gene RIZ in 1p36-linked cancers. *Front. Biosci.* 4: 528-532.
- Piao, Z., et al. 2000. Frequent frameshift mutations of RIZ in sporadic gastrointestinal and endometrial carcinomas with microsatellite instability. *Cancer Res.* 60: 4701-4704.
- Jiang, G.L., et al. 2001. Adenovirus expressing RIZ1 in tumor suppressor gene therapy of microsatellite-unstable colorectal cancers. *Cancer Res.* 61: 1796-1798.
- Sakurada, K., et al. 2001. RIZ, the retinoblastoma protein interacting zinc-finger gene, is mutated in genetically unstable cancers of the pancreas, stomach, and colorectum. *Genes Chromosomes Cancer* 30: 207-211.
- Poetsch, M., et al. 2002. Frameshift mutations of RIZ, but no point mutations in RIZ1 exons in malignant melanomas with deletions in 1p36. *Oncogene* 21: 3038-3042.
- Sasaki, O., et al. 2002. Altered expression of retinoblastoma protein-interacting zinc-finger gene, RIZ, in human leukaemia. *Br. J. Haematol.* 119: 940-948.
- Pan, K.F., et al. 2004. Detection of frameshift mutations of RIZ in gastric cancers with microsatellite instability. *World J. Gastroenterol.* 10: 2719-2722.

CHROMOSOMAL LOCATION

Genetic locus: PRDM2 (human) mapping to 1p36.21; Prdm2 (mouse) mapping to 4 E1.

SOURCE

RIZ (33AT1045) is a mouse monoclonal antibody raised against amino acids 1-347 of recombinant RIZ of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RIZ (33AT1045) is recommended for detection of RIZ isoform 1 (RIZ1) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with RIZ isoform 2 (RIZ2).

Suitable for use as control antibody for RIZ siRNA (h): sc-106513, RIZ siRNA (m): sc-152980, RIZ shRNA Plasmid (h): sc-106513-SH, RIZ shRNA Plasmid (m): sc-152980-SH, RIZ shRNA (h) Lentiviral Particles: sc-106513-V and RIZ shRNA (m) Lentiviral Particles: sc-152980-V.

Molecular Weight of RIZ: 250 kDa.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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