SANTA CRUZ BIOTECHNOLOGY, INC.

FEZ1 (C-20): sc-19508

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Frequent loss of heterozygosity (LOH) at human chromosome 8p21-22 is associated with various tumors including prostate and breast cancer. The 8p21-22 region contains the FEZ1 gene which is altered in tumors of the esophagus, prostate and breast. The FEZ1 protein (also known as leucine zipper putative tumor suppressor or LZTS1) contains a DNA-binding leucine zipper motif. FEZ1 is expressed in normal breast and prostate cell, but alterations in FEZ1 expression result in abnormal cell growth. The absence of FEZ1 expression is characteristic of breast and prostate cancer cell lines as well as primary breast and prostate tumors. This absence of FEZ1 may be due to several factors including mutations in the FEZ1 gene or hypermethylation of the CpG island flanking the FEZ1 promoter region. FEZ1 acts as a negative regulator of cell growth. During cell-cycle progression, FEZ1 localizes to microtubule components and is hyperphosphorylated by cAMP-dependent kinase.

REFERENCES

1. Macoska, J.A., et al. 1995. Evidence for three tumor suppressor gene loci on chromosome 8p in human prostate cancer. Cancer Res. 55: 5390-5395.
2. Kagan, J., et al. 1995. Homozygous deletions at 8p22 and 8p21 in prostate cancer implicate these regions as the sites for candidate tumor suppressor genes. Oncogene 11: 2121-2126.
3. Anbazhagan, R., et al. 1998. Allelic loss of chromosomal ARM 8p in breast cancer progression. Am. J. Pathol. 152: 815-819.
4. Ishii, H., et al. 1999. The FEZ1 gene at chromosome 8p22 encodes a leucine-zipper protein, and its expression is altered in multiple human tumors. Proc. Natl. Acad. Sci. USA 96: 3928-3933.
5. Ishii, H., et al. 2001. FEZ1/LZTS1 gene at 8p22 suppresses cancer cell growth and regulates mitosis. Proc. Natl. Acad. Sci. USA 98: 10374-10379.
6. Vecchione, A., et al. 2001. FEZ1/LZTS1 alterations in gastric carcinoma. Clin. Cancer Res. 7: 1546-1552.

CHROMOSOMAL LOCATION

Genetic locus: LZTS1 (human) mapping to 8p21.3.

SOURCE

FEZ1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FEZ1 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-19508 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

FEZ1 (C-20) is recommended for detection of FEZ1 of human origin by Western Blotting (starting dilution 1:200, 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).

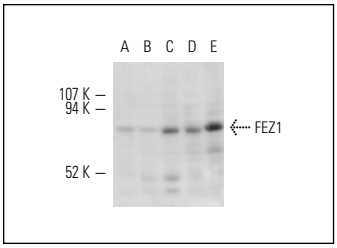
FEZ1 (C-20) is also recommended for detection of FEZ1 in additional species, including porcine.

Suitable for use as control antibody for FEZ1 siRNA (h): sc-37410, FEZ1 shRNA Plasmid (h): sc-37410-SH and FEZ1 shRNA (h) Lentiviral Particles: sc-37410-V.

Molecular Weight of FEZ1: 67 kDa.

Positive Controls: DU 145 cell lysate: sc-2268, LNCaP cell lysate: sc-2231 or MOLT-4 cell lysate: sc-2233.

DATA



FEZ1 (C-20): sc-19508. Western blot analysis of FEZ1 expression in SK-N-SH (**A**), NTERA-2 cl.D1 (**B**), DU 145 (**C**), LNCaP (**D**) and MOLT-4 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Al Nakouzi, N., et al. 2014. Targeting CDC25C, PLK1 and CHEK1 to overcome docetaxel resistance induced by loss of LZTS1 in prostate cancer. Oncotarget 5: 667-678.

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.