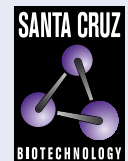


fzr (AR38.2): sc-53291

The Power to Question

BACKGROUND

Fizzy-related protein, known as *fzr*, is a conserved eukaryotic gene that has been recently identified as a seven WD domain family member and is implicated in cell cycle regulation of *Drosophila* and yeast. Retroviral overexpression of *fzr* in B-lymphoma cells reduces tumor formation. *fzr* overexpression increases B-lymphoma cell susceptibility to natural killer cell (NK) cytotoxicity. *fzr* has been implicated in a new category of genes which suppress B-cell tumorigenesis. Current research suggests a novel role for *fzr* in the target cell interaction with NK cells. *fzr* also negatively regulates the levels of cyclins A, B and B3. Loss of *fzr* causes progression through an extra division cycle in the epidermis and inhibition of endoreduplication in the salivary gland, in addition to failure of cyclin removal. Conversely, premature *fzr* overexpression downregulates mitotic cyclins, inhibits mitosis and transforms mitotic cycles into endoreduplication cycles.

REFERENCES

1. Sigrist, S.J. and Lehner, C.F. 1997. *Drosophila* fizzy-related downregulates mitotic cyclins and is required for cell proliferation arrest and entry into endocycles. *Cell* 4: 671-681.
2. Inbal, N., et al. 1999. The mammalian fizzy and fizzy-related genes are regulated at the transcriptional and posttranscriptional levels. *FEBS Lett.* 3: 350-354.
3. Wang, C.X., et al. 2000. Overexpression of murine fizzy-related (*fzr*) increases natural killer cell-mediated cell death and suppresses tumor growth. *Blood* 1: 259-263.
4. Yudkovsky, Y., et al. 2000. Phosphorylation of Cdc20/fizzy negatively regulates the mammalian cyclosome/APC in the mitotic checkpoint. *Biochem. Biophys. Res. Commun.* 2: 299-304.
5. Zur, A. and Brandeis, M. 2001. Securin degradation is mediated by *fzy* and *fzr*, and is required for complete chromatid separation but not for cytokinesis. *EMBO J.* 4: 792-801.

CHROMOSOMAL LOCATION

Genetic locus: FZR1 (human) mapping to 19p13.3; Fzr1 (mouse) mapping to 10 C1.

SOURCE

fzr (AR38.2) is a mouse monoclonal antibody raised against recombinant *fzr* 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.

STORAGE

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

APPLICATIONS

fzr (AR38.2) is recommended for detection of *fzr* of mouse, rat and 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

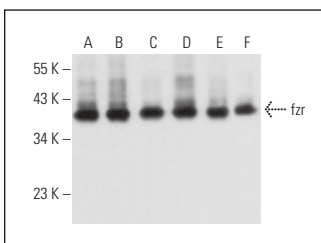
Suitable for use as control antibody for *fzr* siRNA (h): sc-44349, *fzr* siRNA (m): sc-145283, *fzr* shRNA Plasmid (h): sc-44349-SH, *fzr* shRNA Plasmid (m): sc-145283-SH, *fzr* shRNA (h) Lentiviral Particles: sc-44349-V and *fzr* shRNA (m) Lentiviral Particles: sc-145283-V.

Molecular Weight of *fzr*: 55 kDa.

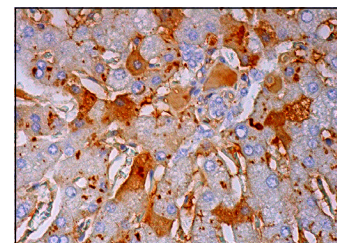
Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or A-431 whole cell lysate: sc-2201.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

fzr (AR38.2): sc-53291. Western blot analysis of *fzr* expression in JAR (A), A-431 (B), PC-3 (C), HeLa (D), Jurkat (E) and C2C12 (F) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



fzr (AR38.2): sc-53291. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of subset of hepatocytes.

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.