

fzr (m): 293T Lysate: sc-120348

BACKGROUND

Fizzy-related protein, known as fzr, is a conserved eukaryotic gene that has been recently identified as a 7WD 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., Listovsky, T. and Brandeis, M. 1999. The mammalian fizzy and fizzy-related genes are regulated at the transcriptional and post-transcriptional levels. *FEBS Lett.* 3: 350-354.
3. Wang, C.X., Fisk, B.C., Wadehra, M., Su, H. and Braun, J. 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., Shteinberg, M., Listovsky, T., Brandeis, M. and Herskho, A. 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 (mouse) mapping to 10 C1.

PRODUCT

fzr (m): 293T Lysate represents a lysate of mouse fzr transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

fzr (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive fzr antibodies. Recommended use: 10-20 µl per lane.

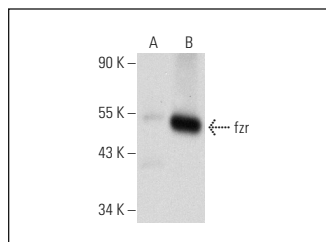
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

fzr (B-6): sc-166714. is recommended as a positive control antibody for Western Blot analysis of enhanced mouse fzr expression in fzr transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

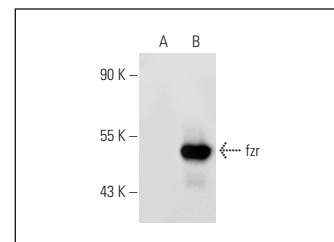
RECOMMENDED SUPPORT REAGENTS

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.

DATA



fzr (B-6): sc-166714. Western blot analysis of fzr expression in non-transfected: sc-117752 (A) and mouse fzr transfected: sc-120348 (B) 293T whole cell lysates.



fzr (DCS-266): sc-56312. Western blot analysis of fzr expression in non-transfected: sc-117752 (A) and mouse fzr transfected: sc-120348 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.