SANTA CRUZ BIOTECHNOLOGY, INC.

ZFR (N-14): sc-169876

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ZFR (zinc finger RNA-binding protein), also known as M-phase phosphoprotein homolog, is 1,074 amino acid RNA-binding protein. In human, ZFR is expressed in lung, liver, lymphocytes, heart, pancreas, kidney and placenta, and regulates postimplantation and gastrulation stages of development. Murine ZFR is observed in testis, ovary and brain. With elevated levels of expression during meiosis, ZFR associates with chromosome foci in meiotic cells. ZFR contains one DZF domain and localizes in the somatodendritic compartment of hippocampal neurons and co-localizes with STAU2 in cytosolic RNA granules. Knockout of ZFR in mouse embryo prevents the development of some embryonic structures leads to an increase in programmed cell death with a decrease in mitotic index.

REFERENCES

1. Hu, R.M., Han, Z.G., Song, H.D., Peng, Y.D., Huang, Q.H., Ren, S.X., Gu, Y.J., Huang, C.H., Li, Y.B., Jiang, C.L., Fu, G., Zhang, Q.H., Gu, B.W., Dai, M., et al. 2000. Gene expression profiling in the human hypothalamus-pituitary-adrenal axis and full-length cDNA cloning. Proc. Natl. Acad. Sci. USA 97: 9543-9548.
2. Kleines, M., Gärtner, A., Ritter, K. and Schaade, L. 2001. Cloning and expression of the human single copy homologue of the mouse zinc finger protein ZFR. Gene 275: 157-162.
3. Schmutz, J., et al. 2004. The DNA sequence and comparative analysis of human chromosome 5. Nature 431: 268-274.
4. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Genome Res. 14: 2121-2127.
5. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
6. Choudhary, C., Kumar, C., Gnad, F., Nielsen, M.L., Rehman, M., Walther, T.C., Olsen, J.V. and Mann, M. 2009. Lysine acetylation targets protein complexes and co-regulates major cellular functions. Science 325: 834-840.
7. Gauci, S., Helbig, A.O., Slijper, M., Krijgsveld, J., Heck, A.J. and Mohammed, S. 2009. Lys-N and trypsin cover complementary parts of the phosphoproteome in a refined SCX-based approach. Anal. Chem. 81: 4493-4501.

CHROMOSOMAL LOCATION

Genetic locus: ZFR (human) mapping to 5p13.3; Zfr (mouse) mapping to 15 A1.

SOURCE

ZFR (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ZFR 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-169876 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZFR (N-14) is recommended for detection of ZFR 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); non cross-reactive with ZFR2.

ZFR (N-14) is also recommended for detection of ZFR in additional species, including canine.

Suitable for use as control antibody for ZFR siRNA (h): sc-91637, ZFR siRNA (m): sc-155598, ZFR shRNA Plasmid (h): sc-91637-SH, ZFR shRNA Plasmid (m): sc-155598-SH, ZFR shRNA (h) Lentiviral Particles: sc-91637-V and ZFR shRNA (m) Lentiviral Particles: sc-155598-V.

Molecular Weight of ZFR: 117 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.

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 or our catalog for detailed protocols and support products.