

ZFR (B-8): sc-365743



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 1 DZF domain and localizes in the somatodendritic compartment of hippocampal neurons and colocalizes 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., 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., et al. 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., et al. 2009. Lysine acetylation targets protein complexes and co-regulates major cellular functions. *Science* 325: 834-840.

CHROMOSOMAL LOCATION

Genetic locus: ZFR (human) mapping to 5p13.3.

SOURCE

ZFR (B-8) is a mouse monoclonal antibody raised against amino acids 418-570 mapping within an internal region of ZFR 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-365743 X, 200 µg/0.1 ml.

ZFR (B-8) is available conjugated to agarose (sc-365743 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365743 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365743 PE), fluorescein (sc-365743 FITC), Alexa Fluor® 488 (sc-365743 AF488), Alexa Fluor® 546 (sc-365743 AF546), Alexa Fluor® 594 (sc-365743 AF594) or Alexa Fluor® 647 (sc-365743 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365743 AF680) or Alexa Fluor® 790 (sc-365743 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ZFR (B-8) is recommended for detection of ZFR of human origin by Western Blotting (starting dilution 1:100, 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).

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

ZFR (B-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ZFR: 117 kDa.

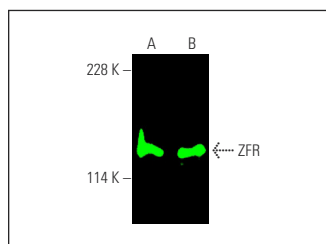
Positive Controls: SJRH30 cell lysate: sc-2287 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

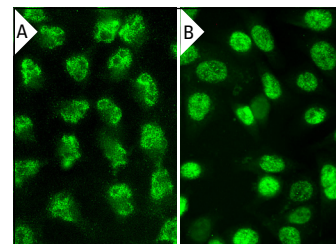
To ensure optimal results, the following support reagents are recommended:

- 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.

DATA



ZFR (B-8): sc-365743. Near-infrared western blot analysis of ZFR expression in HeLa (A) and SJRH30 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



ZFR (B-8): sc-365743. Immunofluorescence staining of methanol-fixed HeLa (A) and SW480 (B) cells showing nuclear localization.

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.