SANTA CRUZ BIOTECHNOLOGY, INC.

HSF2BP (5): sc-130322

BACKGROUND

HSF2BP (heat shock factor 2-binding protein) is a 334 amino acid protein encoded by the human gene HSF2BP. The HSF2BP protein has an N-terminal hydrophilic region predicted to form an α-helical structure containing two leucine zipper motifs. The C-terminal region is largely hydrophobic and forms β sheets. Heat shock factors (HSFs) bind to heat shock elements (HSE) that are promoter sites for heat-shock proteins. Unlike HSF1 and HSF3, HSF2 is not activated by environmental stresses such as heat; instead, it is thought to be important in differentiation and development. HSF2BP associates with HSF2 *in vitro* and *in vivo* and is specifically expressed in testis. The interaction occurs between the trimerization domain of HSF2 and the N-terminal hydrophilic region of HSF2BP that comprises two leucine zipper motifs. This indicates HSF2BP may be involved in modulating HSF2 activation in testis.

REFERENCES

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2. Goodson, M.L., Park-Sarge, O.K. and Sarge, K.D. 1995. Tissue-dependent expression of heat shock factor 2 isoforms with distinct transcriptional activities. Mol. Cell. Biol. 15: 5288-5293.
3. Yoshima, T., Yura, T. and Yanagi, H. 1998. Novel testis-specific protein that interacts with heat shock factor 2. Gene 214: 139-146.
4. He, H., Soncin, F., Grammatikakis, N., Li, Y., Siganou, A., Gong, J., Brown, S.A., Kingston, R.E. and Calderwood, S.K. 2003. Elevated expression of heat shock factor (HSF) 2A stimulates HSF1-induced transcription during stress. J. Biol. Chem. 278: 35465-35475.
5. Jakobs, A., Himstedt, F., Funk, M., Korn, B., Gaestel, M. and Niedenthal, R. 2007. UBC9 fusion-directed SUMOylation identifies constitutive and inducible SUMOylation. Nucleic Acids Res. 35: e109.

CHROMOSOMAL LOCATION

Genetic locus: HSF2BP (human) mapping to 21q22.3.

SOURCE

HSF2BP (5) is a mouse monoclonal antibody raised against recombinant HSF2BP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HSF2BP (5) is available conjugated to agarose (sc-130322 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-130322 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-130322 PE), fluorescein (sc-130322 FITC), Alexa Fluor® 488 (sc-130322 AF488), Alexa Fluor® 546 (sc-130322 AF546), Alexa Fluor® 594 (sc-130322 AF594) or Alexa Fluor® 647 (sc-130322 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-130322 AF680) or Alexa Fluor® 790 (sc-130322 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HSF2BP (5) is recommended for detection of HSF2BP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HSF2BP siRNA (h): sc-62480, HSF2BP shRNA Plasmid (h): sc-62480-SH and HSF2BP shRNA (h) Lentiviral Particles: sc-62480-V.

Molecular Weight of HSF2BP: 38 kDa.

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.

SELECT PRODUCT CITATIONS

1. Zhang, J., Wang, T., Bi, J., Ke, M., Ren, Y., Wang, M., Du, Z., Liu, W., Hu, L., Zhang, X., Liu, X., Wang, B., Wu, Z., Lv, Y., Meng, L. and Wu, R. 2023. Overexpression of HSF2 binding protein suppresses endoplasmic reticulum stress via regulating subcellular localization of CDC73 in hepatocytes. Cell Biosci. 13: 64.

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.