

# HSF2BP (N-15): sc-54483

## 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  $\alpha$ -helical structure containing two leucine zipper motifs. The C-terminal region is largely hydrophobic and forms  $\beta$  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

1. Sarge, K.D., Park-Sarge, O.K., Kirby, J.D., Mayo, K.E. and Morimoto, R.I. 1994. Expression of heat shock factor 2 in mouse testis: potential role as a regulator of heat shock protein gene expression during spermatogenesis. *Biol. Reprod.* 50: 1334-1343.
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; Hsf2bp (mouse) mapping to 17 B1.

## SOURCE

HSF2BP (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HSF2BP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54483 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

HSF2BP (N-15) is recommended for detection of HSF2BP 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).

HSF2BP (N-15) is also recommended for detection of HSF2BP in additional species, including equine, canine and bovine.

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 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.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **HSF2BP (5): sc-130322**, our highly recommended monoclonal alternative to HSF2BP (N-15).