SANTA CRUZ BIOTECHNOLOGY, INC.

FBP2 (4C10): sc-293476

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Activation of FUSE, the far-upstream element, is required for the proper expression of the mammalian gene c-Myc in undifferentiated cells. The binding of FBP (FUSE-binding protein or Far upstream element binding protein) to FUSE is necessary for c-Myc expression, indicating that FBP functions as a growth-dependent regulator of c-Myc expression. Isolated from proliferating HL60 cells, FBP, FBP2, and FBP3 comprise a family of single-stranded DNA-binding proteins that specifically bind to FUSE elements. The FBP transcription factors share a conserved central DNA-binding domain and show significant homology in their carboxyl-terminal activation domains. Expression of FBP is detected in undifferentiated cells and is substantially decreased following cellular differentiation.

REFERENCES

1. Avigan, M.I., et al. 1990. A far upstream element stimulates c-Myc expression in undifferentiated leukemia cells. J. Biol. Chem. 265: 18538-18545.
2. Duncan, R.D., et al. 1994. A sequence-specific, single strang binding protein activates the far upstream of c-Myc and defines a new DNA binding motif. Genes Dev. 8: 465-480.
3. Bazar, L., et al. 1995. A transactivator of c-Myc is coordinately regulated with the proto-oncogene during cellular growth. Oncogene 10: 2229-2238.
4. Davis-Smyth, T., et al. 1996. The far upstream element-binding proteins comprise and ancient family of single-strand DNA-binding transactivators. J. Biol. Chem. 271: 31679-31687.
5. Michelotti, G.A., et al. 1996. Multiple single-stranded *cis* elements are associated with activated chrmatin of the human c-Myc gene *in vivo*. Mol. Cell. Biol. 16: 2656-2669.
6. Rehbein, M., et al. 2002. Molecular characterization of MARTA1, a protein interacting with the dendritic targeting element of MAP2 mRNAs. J. Neurochem. 82: 1039-1046

CHROMOSOMAL LOCATION

Genetic locus: KHSRP (human) mapping to 19p13.3; Khsrp (mouse) mapping to 17 D.

SOURCE

FBP2 (4C10) is a mouse monoclonal antibody raised against amino acids 151-239 representing partial length FBP2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

FBP2 (4C10) is recommended for detection of FBP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

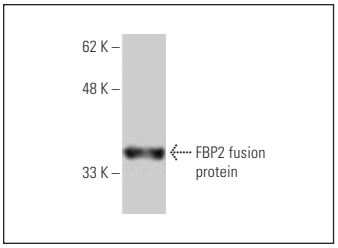
Suitable for use as control antibody for FBP2 siRNA (h): sc-44831, FBP2 siRNA (m): sc-44832, FBP2 shRNA Plasmid (h): sc-44831-SH, FBP2 shRNA Plasmid (m): sc-44832-SH, FBP2 shRNA (h) Lentiviral Particles: sc-44831-V and FBP2 shRNA (m) Lentiviral Particles: sc-44832-V.

Molecular Weight of FBP2: 74 kDa.

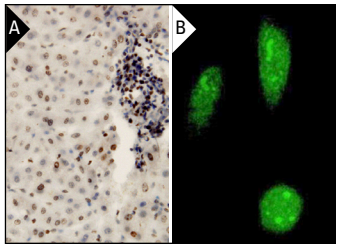
RECOMMENDED SUPPORT REAGENTS

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. 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FBP2 (4C10): sc-293476. Western blot analysis of human recombinant FBP2 fusion protein.



FBP2 (4C10); sc-293476. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing nuclear staining (**A**). Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and nucleolar localization (**B**).

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.