SANTA CRUZ BIOTECHNOLOGY, INC.

FBP1 (C-20): sc-11101

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) 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, FBP1, 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 an 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 chromatin of the human c-Myc gene *in vivo*. Mol. Cell. Biol. 16: 2656-2669.

CHROMOSOMAL LOCATION

Genetic locus: FUBP1 (human) mapping to 1p31.1, KHSRP (human) mapping to 19p13.3; Fubp1 (mouse) mapping to 3 H3, Khsrp (mouse) mapping to 17 D.

SOURCE

FBP1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FBP1 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-11101 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-11101 X, 200 µg/0.1 ml.

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

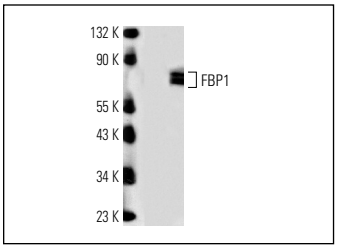
FBP1 (C-20) is recommended for detection of FBP1 and, to a lesser extent, FBP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

FBP (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of FBP1/FBP2: 74 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HeLa whole cell lysate: sc-2200 or AML-193 whole cell lysate.

DATA



FBP (C-20): sc-11101. Western blot analysis of FBP1 expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Rothé, F., et al. 2006. Identification of FUSE-binding proteins as interacting partners of TIA proteins. Biochem. Biophys. Res. Commun. 343: 57-68.
2. David, D., et al. 2006. β-Amyloid treatment of two complementary P301L τ-expressing Alzheimer's disease models reveals similar deregulated cellular processes. Proteomics 6: 6566-6577.
3. Weber, A., et al. 2008. The FUSE binding proteins FBP1 and FBP3 are potential c-Myc regulators in renal, but not in prostate and bladder cancer. BMC Cancer 8: 369.
4. Weinkauf, M., et al. 2009. 2-D PAGE-based comparison of proteasome inhibitor bortezomib in sensitive and resistant mantle cell lymphoma. Electrophoresis 30: 974-986.

PROTOCOLS

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