

FBP3 (E-8): sc-398466

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 strand 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.

CHROMOSOMAL LOCATION

Genetic locus: FUBP3 (human) mapping to 9q34.11; Fubp3 (mouse) mapping to 2 B.

SOURCE

FBP3 (E-8) is a mouse monoclonal antibody raised against amino acids 1-59 mapping at the N-terminus of FBP3 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.

FBP3 (E-8) is available conjugated to agarose (sc-398466 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398466 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398466 PE), fluorescein (sc-398466 FITC), Alexa Fluor® 488 (sc-398466 AF488), Alexa Fluor® 546 (sc-398466 AF546), Alexa Fluor® 594 (sc-398466 AF594) or Alexa Fluor® 647 (sc-398466 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398466 AF680) or Alexa Fluor® 790 (sc-398466 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

FBP3 (E-8) is recommended for detection of FBP3 of mouse, rat and 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).

FBP3 (E-8) is also recommended for detection of FBP3 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for FBP3 siRNA (h): sc-106747, FBP3 siRNA (m): sc-145097, FBP3 shRNA Plasmid (h): sc-106747-SH, FBP3 shRNA Plasmid (m): sc-145097-SH, FBP3 shRNA (h) Lentiviral Particles: sc-106747-V and FBP3 shRNA (m) Lentiviral Particles: sc-145097-V.

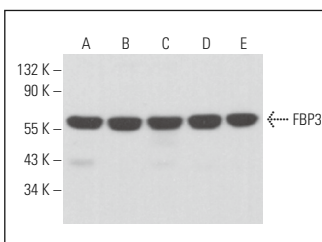
Molecular Weight of FBP3: 64 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

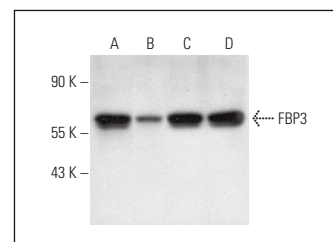
RECOMMENDED SUPPORT REAGENTS

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



FBP3 (E-8): sc-398466. Western blot analysis of FBP3 expression in HeLa (A), Hep G2 (B), HL-60 (C), 3T3-L1 (D) and RAW 264.7 (E) whole cell lysates.



FBP3 (E-8): sc-398466. Western blot analysis of FBP3 expression in MCF7 (A), SK-BR-3 (B), HeLa (C) and Hep G2 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tang, B., et al. 2022. Extracellular 5'-methylthioadenosine inhibits intracellular symmetric dimethylarginine protein methylation of FUSE-element binding proteins. *J. Biol. Chem.* 298: 102367.

STORAGE

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