

E4BP4 (C-6): sc-374451

BACKGROUND

E4BP4, also known as NFIL3, functions as a transcriptional repressor and is a member of the basic leucine zipper (bZIP) transcription factor family. E4BP4 binds with high specificity to the E4 ATF, which is a DNA sequence traditionally targeted by the ATF/CREB family of transcription factors. A 65 amino acid segment located in the carboxy-terminus of E4BP4 interacts specifically with the TBP binding protein Dr1. In the suprachiasmatic nucleus, circadian center and liver, E4BP4 competes with PAR proteins for DNA binding via a reciprocating mechanism. The phase expression of E4BP4 correlates with the circadian cycle and represses transcription of genes otherwise activated by PAR transcription regulators. E4BP4 also plays an important role in an IL-3-mediated signaling pathway that is responsible for the survival of B cell progenitors. The gene encoding human E4BP4 maps to chromosome 9q22.31.

REFERENCES

1. Cowell, I.G., et al. 1992. Transcriptional repression by a novel member of the bZIP family of transcription factors. *Mol. Cell. Biol.* 12: 3070-3077.
2. Cowell, I.G., et al. 1994. Transcriptional repression by the human bZIP factor E4BP4: definition of a minimal repression domain. *Nucleic Acids Res.* 22: 59-65.

CHROMOSOMAL LOCATION

Genetic locus: NFIL3 (human) mapping to 9q22.31; Nfil3 (mouse) mapping to 13 B1.

SOURCE

E4BP4 (C-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 425-462 at the C-terminus of E4BP4 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-374451 X, 200 µg/0.1 ml.

E4BP4 (C-6) is available conjugated to agarose (sc-374451 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374451 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374451 PE), fluorescein (sc-374451 FITC), Alexa Fluor® 488 (sc-374451 AF488), Alexa Fluor® 546 (sc-374451 AF546), Alexa Fluor® 594 (sc-374451 AF594) or Alexa Fluor® 647 (sc-374451 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374451 AF680) or Alexa Fluor® 790 (sc-374451 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374451 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

E4BP4 (C-6) is recommended for detection of E4BP4 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).

Suitable for use as control antibody for E4BP4 siRNA (h): sc-37821, E4BP4 siRNA (m): sc-37822, E4BP4 shRNA Plasmid (h): sc-37821-SH, E4BP4 shRNA Plasmid (m): sc-37822-SH, E4BP4 shRNA (h) Lentiviral Particles: sc-37821-V and E4BP4 shRNA (m) Lentiviral Particles: sc-37822-V.

E4BP4 (C-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

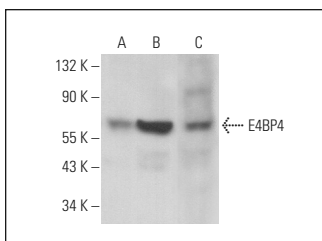
Molecular Weight of E4BP4: 60 kDa.

Positive Controls: Ramos cell lysate: sc-2216, HeLa whole cell lysate: sc-2200 or E4BP4 (h): 293 Lysate: sc-110510.

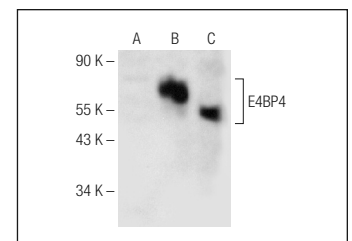
RECOMMENDED SECONDARY REAGENTS

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



E4BP4 (C-6): sc-374451. Western blot analysis of E4BP4 expression in HeLa (A), Ramos (B) and NIH/3T3 (C) whole cell lysates.



E4BP4 (C-6): sc-374451. Western blot analysis of E4BP4 expression in non-transfected 293: sc-110760 (A), human E4BP4 transfected 293: sc-110510 (B) and Ramos (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Karunakaran, D., et al. 2020. RIPK1 gene variants associate with obesity in humans and can be therapeutically silenced to reduce obesity in mice. *Nat. Metab.* 2: 1113-1125.

RESEARCH USE

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