ATF-2 (F2BR-1): sc-242

BACKGROUND

Eukaryotic gene transcription is regulated by sequence-specific transcription factors which bind modular cis-acting promoter and enhancer elements. The ATF/CREB transcription factor family binds the palindromic cAMP response element (CRE) octanucleotide TGACGTCA. The ATF/CREB family includes CREB-1, CREB-2 (also designated ATF-4), ATF-1, ATF-2 and ATF-3. This family of proteins contain highly divergent N-terminal domains, but share a C-terminal leucine zipper for dimerization and DNA binding. ATF-2 forms homodimers and heterodimers with c-Jun to initiate CRE-dependent transcription. Phosphorylation of ATF-2 at Thr69 and Thr 71 by stress-activated kinases is necessary for transcriptional activation. Myc also induces phosphorylation of ATF-2 at Thr 69 and Thr 71 to prolong the half-life of ATF-2. ATF-2 also functions as a histone acetyltransferase (HAT) by specifically acetylating histones H2B and H4 in vitro.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: ATF2 (human) mapping to 2q31.1; Atf2 (mouse) mapping to 2 C3.

SOURCE

ATF-2 (F2BR-1) is a mouse monoclonal antibody raised against amino acids 350-505 mapping within the DNA binding and dimerization domain of ATF-2 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-242 X, 200 µg/0.1 ml.

ATF-2 (F2BR-1) is available conjugated to agarose (sc-242 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-242 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-242 PE), fluorescein (sc-242 FITC), Alexa Fluor® 488 (sc-242 AF488), Alexa Fluor® 546 (sc-242 AF546), Alexa Fluor® 594 (sc-242 AF594) or Alexa Fluor® 647 (sc-242 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-242 AF680) or Alexa Fluor® 790 (sc-242 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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

ATF-2 (F2BR-1) is recommended for detection of ATF-2 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).


ATF-2 (F2BR-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ATF-2: 70 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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