ATF-4 (B-3): sc-390063

**BACKGROUND**

Eukaryotic gene transcription is regulated by sequence-specific transcription factors which bind modular cis acting promoter and enhancer elements. The cAMP response element (CRE), one of the best studied of such elements, consists of the palindromic octanucleotide TGACGTCA. Several CRE binding proteins have been identified within the ATF/CREB family, the best characterized of which include CREB-1, CREB-2 (also designated ATF-4), ATF-1, ATF-2 and ATF-3. These proteins share highly related COOH terminal leucine zipper dimerization and basic DNA binding domains but are highly divergent in their amino terminal domains. Although each of the ATF/CREB proteins appear capable of binding CRE in its homodimeric form, certain of these also bind as heterodimers, both within the ATF/CREB family and even with members of the AP-1 transcription factor family.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ATF4 (human) mapping to 22q13.1; Atf4 (mouse) mapping to 15 E1.

**SOURCE**

ATF-4 (B-3) is a mouse monoclonal antibody raised against amino acids 1-290 of ATF-4 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG κ, 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-390063 X, 200 µg/0.1 ml.

ATF-4 (B-3) is available conjugated to agarose (sc-390063 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390063 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390063 PE), fluorescein (sc-390063 FITC), Alexa Fluor® 546 (sc-390063 AF546), Alexa Fluor® 594 (sc-390063 AF594) or Alexa Fluor® 647 (sc-390063 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390063 AF680) or Alexa Fluor® 790 (sc-390063 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-4 (B-3) is recommended for detection of ATF-4 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), 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 ATF-4 siRNA (h): sc-35112, ATF-4 siRNA (m): sc-35113, ATF-4 shRNA Plasmid (h): sc-35113-SH, ATF-4 shRNA Plasmid (m): sc-35113-SH, ATF-4 shRNA (h) Lentiviral Particles: sc-35112-V and ATF-4 shRNA (m) Lentiviral Particles: sc-35113-V.

ATF-4 (B-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of ATF-4: 38 kDa.

Molecular Weight (observed) of ATF-4: 40/50 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or Jurkat nuclear extract: sc-2132.

**DATA**

ATF-4 (B-3): sc-390063. Western blot analysis of ATF-4 expression in K-562 (A) and Jurkat (B) whole cell lysates and K-562 (C) and Jurkat (D) nuclear extracts.

ATF-4 (B-3) sc-390063. Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing nuclear and cytoplasmic staining of neuronal cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear and cytoplasmic staining of pneumocytes and macrophages (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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