

ATF-1 (H-60): sc-28673

BACKGROUND

Eukaryotic gene transcription is regulated by sequence-specific transcription factors that 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-1 is shown to play a key role in the induction of NOX1. ATF-1 binds the cAMP response element (CRE) and mediates PKA-induced stimulation of CRE-reporter genes. ATF-2 forms homodimers and heterodimers with c-Jun to initiate CRE-dependent transcription. Phosphorylation of ATF-2 at Thr 69 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 functions as a histone acetyltransferase (HAT) and acetylates Histones H2B and H4 specifically *in vitro*.

CHROMOSOMAL LOCATION

Genetic locus: ATF1 (human) mapping to 12q13.12; Atf1 (mouse) mapping to 15 F1.

SOURCE

ATF-1 (H-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping at the N-terminus of ATF-1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28673 X, 200 µg/0.1 ml.

APPLICATIONS

ATF-1 (H-60) is recommended for detection of ATF-1 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).

ATF-1 (H-60) is also recommended for detection of ATF-1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ATF-1 siRNA (h): sc-29754, ATF-1 siRNA (m): sc-29755, ATF-1 shRNA Plasmid (h): sc-29754-SH, ATF-1 shRNA Plasmid (m): sc-29755-SH, ATF-1 shRNA (h) Lentiviral Particles: sc-29754-V and ATF-1 shRNA (m) Lentiviral Particles: sc-29755-V.

ATF-1 (H-60) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

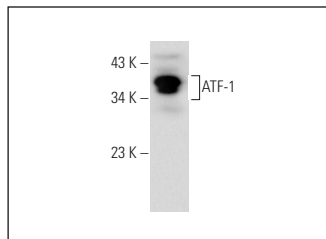
Molecular Weight of ATF-1: 35 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, A-431 whole cell lysate: sc-2201 or Jurkat nuclear extract: sc-2132.

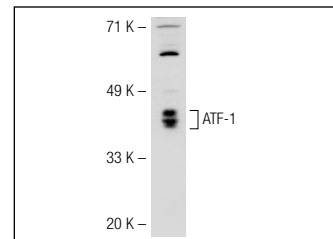
STORAGE

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

DATA



ATF-1 (H-60): sc-28673. Western blot analysis of ATF-1 expression in Jurkat nuclear extract.



ATF-1 (H-60): sc-28673. Western blot analysis of ATF-1 expression in HeLa nuclear extract.

SELECT PRODUCT CITATIONS

- Colmone, A., et al. 2006. Activating transcription factor/cAMP response element binding protein family member regulated transcription of CD1A. *J. Immunol.* 177: 7024-7032.
- Yano, K., et al. 2008. Transcriptional activation of the human claudin-18 gene promoter through two AP-1 motifs in PMA-stimulated MKN45 gastric cancer cells. *Am. J. Physiol. Gastrointest. Liver Physiol.* 294: G336-343.
- Jiang, D., et al. 2008. Purification and identification of positive regulators binding to a novel element in the c-Jun promoter. *Biochemistry* 47: 9318-9334.
- Ciccone, N.A., et al. 2008. A composite element that binds basic helix loop helix and basic leucine zipper transcription factors is important for gonadotropin-releasing hormone regulation of the follicle-stimulating hormone β gene. *Mol. Endocrinol.* 22: 1908-1923.

RESEARCH USE

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

PROTOCOLS

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



Try **ATF-1 (25C10G): sc-270** or **ATF-1 (H-3): sc-365525**, our highly recommended monoclonal alternatives to ATF-1 (H-60). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **ATF-1 (25C10G): sc-270**.