Store at -20°C

#9223

ATF-2 Control Cell Extracts

☑ 200 uL
(Controls for 10 western blots)

Cell Signaling TECHNOLOGY®

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rev. 10/26/17

For Research Use Only. Not For Use In Diagnostic Procedures.

Product Includes	Product #	Quantity
ATF-2 Control Cell Extracts (3T3 untreated)	68481	200 ul
ATF-2 Control Cell Extracts (3T3 +anisomycin)	82288	200 ul

Background: The transcription factor ATF-2 (also called CRE-BP1) binds to both AP-1 and CRE DNA response elements and is a member of the ATF/CREB family of leucine zipper proteins (1). ATF-2 interacts with a variety of viral oncoproteins and cellular tumor suppressors and is a target of the SAPK/JNK and p38 MAP kinase signaling pathways (2-4). Various forms of cellular stress, including genotoxic agents, inflammatory cytokines, and UV irradiation, stimulate the transcriptional activity of ATF-2. Cellular stress activates ATF-2 by phosphorylation of Thr69 and Thr71 (2-4). Both SAPK and p38 MAPK have been shown to phosphorylate ATF-2 at these sites *in vitro* and in cells transfected with ATF-2. Mutations of these sites result in the loss of stress-induced transcription by ATF-2 (2-4). In addition, mutations at these sites reduce the ability of E1A and Rb to stimulate gene expression via ATF-2 (2).

Description: *Nonphosphorylated ATF-2 Control Cell Extracts:* Total extracts from NIH/3T3 cells, to serve as a negative control. Supplied in SDS Sample Buffer.

Phosphorylated ATF-2 Control Cell Extracts: Total extracts from NIH/3T3 cells, treated with Anisomycin #2222 at 25 ug/ml for 30 minutes to serve as a positive control. Supplied in SDS Sample Buffer.

Directions for Use: Boil for 3 minutes prior to use. Load 20 µl of phosphorylated and nonphosphorylated ATF-2 Control Cell Extracts per lane.

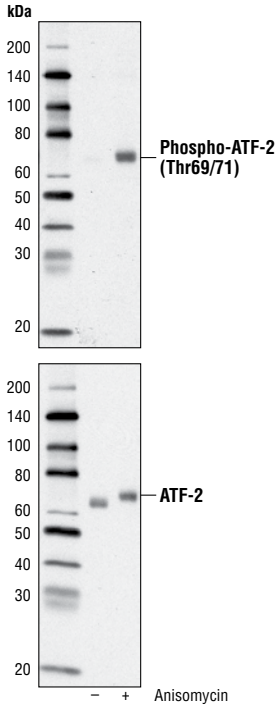
Background References:

(1) Abdel-Hafiz, H.A. et al. (1992) *Mol. Endocrinol.* 6, 2079–2089.

(2) Gupta, S. et al. (1995) *Science* 267, 389–393.

(3) van Dam, H. et al. (1995) *EMBO J.* 14, 1798–1811.

(4) Livingstone, C. et al. (1995) *EMBO J.* 14, 1785–1797.



Western blot analysis of ATF-2 Control Cell Extracts using Phospho-ATF-2 (Thr69/71) Antibody #9225 (upper) and ATF-2 (20F1) Rabbit mAb #9226 (lower).

Storage: *Supplied in SDS Sample Buffer:* 62.5 mM Tris-HCl (pH 6.8 at 25°C), 2% w/v SDS, 10% glycerol, 50 mM DTT, 0.01% w/v phenol red or bromophenol blue. Store at –20°C or at –80°C for long term storage.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

ATF-2 Signaling Pathway

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **IC**—Immunocytochemistry **IF**—Immunofluorescence **F**—Flow cytometry **E**—ELISA **D**—DELFIA®

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **X**—Xenopus **Z**—zebra fish **B**—bovine **All**—all species expected

Species enclosed in parentheses are predicted to react based on 100% sequence homology.