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ATF-2 Control Cell Extracts

Controls for 10 western blots

For Research Use Only. Not for Use in Diagnostic Procedures.

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

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.
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.
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 <i>in vitro</i> 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).
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	<ol style="list-style-type: none"> 1. Abdel-Hafiz, H.A. et al. (1992) <i>Mol Endocrinol</i> 6, 2079-89. 2. Gupta, S. et al. (1995) <i>Science</i> 267, 389-93. 3. van Dam, H. et al. (1995) <i>EMBO J</i> 14, 1798-811. 4. Livingstone, C. et al. (1995) <i>EMBO J</i> 14, 1785-97.

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