

Anti-phospho-ATF2 (Ser490 Ser498)

Rabbit Polyclonal Antibody

Catalog # A10-565BR

Lot # J1274-6

Cited Applications

WB, IHC

Suggested Dilutions:

WB 1:1,000, IHC 1:1000

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the ATF2 protein phosphorylated at serine 490/498

Cross Reactivity

Human and Rat

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser490/498 conjugated to KLH

Formulation

100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.

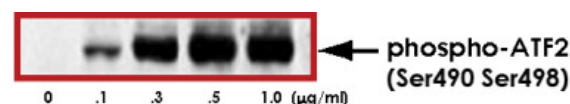
Scientific Background

The activating transcription factor ATF2 (also called CRE-BP1) is a member of the ATF/CREB family of leucine zipper transcription factors, which binds both AP-1 and Cre DNA response element (1). ATF2 has two unique characteristics: it mediates adenovirus E1A-induced trans-activation and forms a heterodimer with c-Jun (2). ATF2 is a target of the JNK signal transduction pathway (3). ATF2 is phosphorylated by JNK on two closely spaced threonine residues located in the NH₂-terminal activation domain. The replacement of these phosphorylation sites with alanine inhibited the transcriptional activity of ATF2. Furthermore, p38 MAPK can also phosphorylate ATF2.

References

1. Maekawa, T. et al: Leucine zipper structure of the protein CRE-BP1 binding to the cyclic AMP response element in brain. EMBO J 1989 8:2023-2028.
2. Nomura, N. et al: Isolation and characterization of a novel member of the gene family encoding the cAMP response element binding protein CRE-BP1. J Biol Chem. 1993 Feb 25;268(6):4259-66.
3. Gupta, S. et al: Transcription factor ATF2 regulation by the JNK signal transduction pathway. Science, 1995 Jan 20;267(5196):389-93.

Sample Data



Western blot of human melanoma cells incubated with varying doses of the radiomimetic drug NCS showing specific immunolabeling of the ~74kDa ATF2 protein phosphorylated at Ser490 and Ser498.

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Purification

Affinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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