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Datasheet for 609-401-D11

ATF2 phospho S490/phospho S498 Antibody

Overview

Description:	Anti-ATF2 pS490/pS498 (RABBIT) Antibody - 609-401-D11
Item No.:	609-401-D11
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	ATF2 antibody recognizes the activating transcription factor ATF2 (also called CRE-BP1) which binds to both AP-1 and CRE DNA response elements and is a member of the ATF/CREB family of leucine zipper proteins. ATF2 has been implicated in the transcriptional regulation of a number of genes including cytokines, cell cycle control and apoptosis. Various forms of cellular stress, including inflammatory cytokines and UV irradiation, stimulate the transcriptional activity of ATF2. Stress induced ATF-dependent transcription is dependent on phosphorylation of ATF. Serine 490 and serine 498 are novel phosphorylation sites on ATF that have recently been identified. ATF2 is particularly abundant in the brain and the ATF2 family of transcription factors is considered an important substrate of signals upstream of the activation of genes associated with neuronal growth and differentiation. ATF expression has also been linked to the depression in humans. Anti-ATF2 pS490/pS498 antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.
Synonyms:	rabbit anti-ATF2 pS490/pS498 Antibody, Cyclic AMP-dependent transcription factor ATF-2, Activating transcription factor 2, Cyclic AMP-responsive element-binding protein 2, CREB-2, HB16, cAMP response element-binding protein CRE-BP1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ATF2

Reactivity:	Human
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-ATF2 pS490/pS498 Antibody was produced by repeated immunizations with synthetic phospho-peptide corresponding to amino acid residues surrounding Ser490/498.
Purity/Specificity:	Anti-ATF2 pS490/pS498 Antibody is directed against ATF2 protein phosphorylated at S490/pS498. The antibody was prepared from monospecific antiserum by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. This antibody is specific for phosphorylated ATF2. Minimal reactivity occurs against non-phosphorylated ATF2. Reactivity against ATF2 occurs from human sources. However, reactivity is also expected against rat based on 100% sequence homology.
Relevant Links:	• UniProtKB - P15336 • GeneID - 1386 • NCBI - AAI07699.1

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-ATF2 pS490/pS498 antibody is tested for use in ELISA, Western Blotting and IHC. Specific conditions for reactivity should be optimized by the end user. ATF2 antibody is specific for the approximately 74kDa ATF2 protein phosphorylated at Ser490,498. Anti-ATF2 also recognizes the phosphorylated 54kDa splice form of ATF2.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
IHC:	1:1000
WB:	1:1000

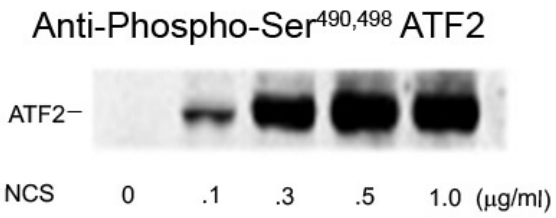
Formulation

Physical State:	Liquid
Concentration:	Titrated value sufficient to run approximately 10 mini blots.
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot of human melanoma cells incubated with varying doses of the radiometric drug NCS showing phospho-specific immunolabeling of the ATF2 protein phosphorylated at Ser^{490,498}.

Western Blot
Western Blot of Rabbit Anti-ATF2 pS490/pS498 antibody. Lane 1: human melanoma cells with 0.0 µg/mL radiomimetic drug NCS. Lane 2: human melanoma cells with 0.1 µg/mL radiomimetic drug NCS. Lane 3: human melanoma cells with 0.3 µg/mL radiomimetic drug NCS. Lane 4: human melanoma cells with 0.5 µg/mL radiomimetic drug NCS. Lane 5: human melanoma cells with 1.0 µg/mL radiomimetic drug NCS. Primary antibody: ATF-2 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~74kDa/~74kDa ATF2 protein phosphorylated at Ser490 and Ser498. Other band(s): none.

Disclaimer

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