

## ATF-2 (phospho Ser112) Polyclonal Antibody

Catalog No: YP0023

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IHC;IF;IP;ELISA

Target: ATF-2

**Fields:** >>MAPK signaling pathway;>>cGMP-PKG signaling pathway;>>PI3K-Akt

signaling pathway;>>Longevity regulating pathway;>>Adrenergic signaling in cardiomyocytes;>>TNF signaling pathway;>>Thermogenesis;>>Dopaminergic synapse;>>Insulin secretion;>>Estrogen signaling pathway;>>Thyroid hormone

synthesis;>>Glucagon signaling pathway;>>Aldosterone synthesis and

secretion;>>Relaxin signaling pathway;>>Cortisol synthesis and

secretion;>>Parathyroid hormone synthesis, secretion and action;>>Cushing syndrome;>>Growth hormone synthesis, secretion and action;>>Prion

disease;>>Cocaine addiction;>>Amphetamine

addiction;>>Alcoholism;>>Hepatitis B;>>Human cytomegalovirus infection;>>Human T-cell leukemia virus 1 infection;>>Viral carcinogenesis;>>Chemical carcinogenesis - receptor activation

Gene Name: ATF2

**Protein Name:** Cyclic AMP-dependent transcription factor ATF-2

Human Gene Id: 1386

**Human Swiss Prot** P15336

No:

Mouse Gene ld: 1.00048e+008

P16951

**Mouse Swiss Prot** 

No:

Rat Gene Id: 81647

Rat Swiss Prot No: Q00969

Immunogen: The antiserum was produced against synthesized peptide derived from human

ATF2 around the phosphorylation site of Ser112 or 94. AA range:79-128



Specificity: Phospho-ATF-2 (S112) Polyclonal Antibody detects endogenous levels of

ATF-2 protein only when phosphorylated at S112.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution:** WB 1:500 - 1:2000. IHC 1:100 - 1:300. Immunoprecipitation: 2-5 ug:mg lysate.

ELISA: 1:20000.. IF 1:50-200

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Concentration**: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 52kD

Cell Pathway: B Cell Receptor; Stem cell pathway; MAPK\_ERK\_Growth; MAPK\_G\_Protein;

PI3K/Akt; Protein Acetylation

**Background:** activating transcription factor 2(ATF2) Homo sapiens This gene encodes a

transcription factor that is a member of the leucine zipper family of DNA binding proteins. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions This protein binds to the cAMP-responsive element (CRE), an octameric palindrome. It forms a homodimer or a heterodimer with c-Jun and stimulates CRE-dependent transcription. This protein is also a histone acetyltransferase (HAT) that

specifically acetylates histones H2B and H4 in vitro; thus it may represent a class of sequence-specific factors that activate transcription by direct effects on chromatin components. The encoded protein may also be involved in cell's

DNA damage response independent of its role in transcriptional regulation. Several alternatively spliced transcript variants have been found for this gene

[provided by RefSeq, Jan 2014

**Function:** caution:It is uncertain whether Met-1 or Met-19 is the

initiator.,function:Transcriptional activator, probably constitutive, which binds to the cAMP-responsive element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters. Interaction with JUN

redirects JUN to bind to CRES preferentially over the 12-O-

tetradecanoylphorbol-13-acetate response elements (TRES) as part of an ATF2-c-Jun complex.,PTM:Phosphorylation of Thr-69 and Thr-71 by MAPK14 causes increased transcriptional activity. Also phosphorylated and activated by JNK.,similarity:Belongs to the bZIP family.

ATF subfamily., similarity: Contains 1 bZIP domain., similarity: Contains 1

C2H2-type zinc finger., subunit: Binds DNA as a dimer and can form a homodimer



in the absence of DNA. Can form a heterodimer with JUN. Interacts with SMAD3 and SMAD4. Binds throu

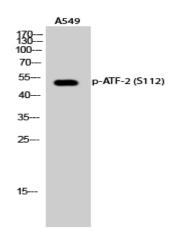
## Subcellular Location :

Nucleus. Cytoplasm. Mitochondrion outer membrane. Shuttles between the cytoplasm and the nucleus and heterodimerization with JUN is essential for the nuclear localization. Localization to the cytoplasm is observed under conditions of cellular stress and in disease states. Localizes at the mitochondrial outer membrane in response to genotoxic stress. Phosphorylation at Thr-52 is required for its nuclear localization and negatively regulates its mitochondrial localization. Co-localizes with the MRN complex in the IR-induced foci (IRIF).

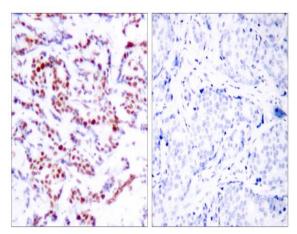
## **Expression:**

Ubiquitously expressed, with more abundant expression in the brain.

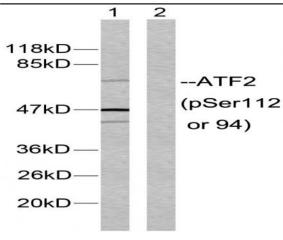
## **Products Images**



Western Blot analysis of A549 cells using Phospho-ATF-2 (S112) Polyclonal Antibody diluted at 1:500



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using ATF2 (Phospho-Ser112 or 94) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from MDA-MB-435 cells, using ATF2 (Phospho-Ser112 or 94) Antibody. The lane on the right is blocked with the phospho peptide.