

## ARG52231 anti-ATF2 phospho (Ser490 / Ser498) antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes ATF2 phospho (Ser490 / Ser498)
Tested Reactivity	Hu
Predict Reactivity	Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATF2
Species	Human
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser490/498 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	EC 2.3.1.48; Histone acetyltransferase ATF2; Activating transcription factor 2; cAMP-dependent transcription factor ATF-2; Cyclic AMP-dependent transcription factor ATF-2; CREB2; HB16; CREB-2; Cyclic AMP-responsive element-binding protein 2; cAMP-responsive element-binding protein 2; CRE-BP1; cAMP response element-binding protein CRE-BP1; TREB7

### Application Instructions

Application table	Application	Dilution
	IHC-P	frozen sections: 1:1000 to 1:2000
	WB	1:1000
Application Note	Specific for ~74k ATF2 protein phosphorylated at Ser490,498. The antibody also recognizes the phosphorylated ~54k splice form of ATF2. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

### Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

Database links

[GeneID: 1386 Human](#)

[Swiss-port # P15336 Human](#)

Gene Symbol

ATF2

Gene Full Name

activating transcription factor 2

Background

The activating transcription factor ATF2 (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 (Maekawa et al., 1989). 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 (Ivanov et al., 2003; Morton et al., 2004). Stress induced ATFdependent transcription is dependent on phosphorylation of ATF (Fuchs et al., 2000); Morton et al., 2004). 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 (Karin and Hunter, 1995). ATF expression has also been linked to the depression in humans (Laifenfeld et al., 2004).

Research Area

Gene Regulation antibody; Immune System antibody

Calculated Mw

55 kDa

PTM

Phosphorylation of Thr-69 by MAPK14 and MAPK11, and at Thr-71 by MAPK1/ERK2, MAPK3/ERK1, MAPK11, MAPK12 and MAPK14 in response to external stimulus like insulin causes increased transcriptional activity. Phosphorylated by PLK3 following hyperosmotic stress. Also phosphorylated and activated by JNK and CaMK4. ATM-mediated phosphorylation at Ser-490 and Ser-498 stimulates its function in DNA damage response. Phosphorylation at Ser-62, Thr-73 and Ser-121 activates its transcriptional activity. Phosphorylation at Thr-69 or Thr-71 enhances its histone acetyltransferase (HAT) activity.

## Images

