

Datasheet: AHP2273

Description:	RABBIT ANTI ATF2 (pSer490/pSer498)
Specificity:	ATF2 (pSer490/pSer498)
Other names:	HB16
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/1000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species Human

Species Cross Reactivity Based on sequence similarity, is expected to react with:Rat
N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form Purified IgG - liquid

Antiserum Preparation Antiserum to ATF2 (pSer490/pSer498) was raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared by affinity purification via sequential chromatography on phospho- and dephospho-peptide affinity columns

Buffer Solution HEPES buffered saline

Preservative 0.09% Sodium Azide (NaN₃)
Stabilisers 1% Bovine Serum Albumin

50% Glycerol

Immunogen Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser490/Ser498 region of human ATF2

External Database Links

UniProt:

[P15336](#) [Related reagents](#)

Entrez Gene:

[1386](#) ATF2 [Related reagents](#)

Synonyms CREB2, CREBP1

Specificity **Rabbit anti ATF2 (pSer490/pSer498) antibody** recognizes activating transcription factor 2 (ATF2), also known as cyclic AMP-dependent transcription factor ATF-2 and cyclic AMP-responsive element-binding protein 2 (CREB-2), when phosphorylated at serine 490 and 498.

The ATF2 gene encodes a transcription factor that is a member of the leucine zipper family of DNA-binding proteins. This protein binds to the cAMP-responsive element (CRE), an octameric palindrome. The protein forms a homodimer or heterodimer with c-Jun and stimulates CRE-dependent transcription. Several studies implicate abnormal activation of ATF-2 in growth and progression of mammalian skin tumors.

ATF2 may mediate oncogenesis caused by mutant Ras protein and regulate maintenance of the aggressive cancer phenotype of some types of epithelial cells. ATF2 has also been shown to be phosphorylated by ATM at Serine 490 and 498 in humans. The serine phosphorylated forms play a role in mediating DNA repair and in response to DNA damage induced by ionizing radiation (IR).

ATF2 exhibits histone acetyltransferase (HAT) activity and has been reported to specifically acetylate histones H2B and H4 *in vitro*. In concert with CUL3 and RBX1, ATF2 promotes the degradation of KAT5 thereby attenuating its ability to acetylate and activate ATM. This protein can also elicit oncogenic or tumor suppressor activities depending on the tissue or cell type.

In response to stress stimuli, ATF2 activates a variety of gene targets that are involved in oncogenesis, and has been correlated with maintenance of a cancer cell phenotype. Inhibiting ATF2 impedes melanoma development and elicits tumor suppressor function. To act as a tumor suppressor, ATF2 must localize at the mitochondria and phosphorylation at Thr52 by PKC ϵ regulates this translocation.

Western Blotting Rabbit anti Human ATF2 detects a band of approximately 74 kDa in human melanoma cell lysates after treatment with the radiomimetic drug NCS

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for

short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10088 available at: 10088: https://www.bio-rad-antibodies.com/uploads/MSDS/10088.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

- Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight@488](#), [DyLight@680](#), [DyLight@800](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M386238:210519'

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