

Phospho-ATF-2 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10262**Specification**

Phospho-ATF-2 Antibody - Product Information

Application	WB, IHC, IP
Primary Accession	P15336
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	54537

Phospho-ATF-2 Antibody - Additional Information**Gene ID** 1386

Application & Usage	Western blotting (1-4 µg/ml), immunoprecipitation (10 µg/ml), and Immunohistochemistry (20 µg/ml). However, the optimal conditions should be determined individually. The antibody detects phosphorylated ATF-2. It recognizes both Thr69/Thr71 dually phosphoralated ATF-2 as well as ATF-2 singly phosphorylated ATF-2 in samples of human, mouse, and rat origins.
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Other Names

ATF2, HB16, CREB2, CREBP1, CRE-BP1, CRE-BP1, TREB7, MGC111558, Cyclic AMP-dependent transcription factor ATF-2, Activating transcription factor 2, Cyclic AMP-dependent transcription factor ATF-2; cAMP-dependent transcription factor ATF-2; Activating transcription factor 2; cAMP response element-binding protein CRE-BP1; HB16; Cyclic AMP-responsive element-binding protein 2; cAMP-responsive element-binding protein 2; CREB-2.

Target/Specificity

Phospho-ATF-2 (Thr71)

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) purified rabbit anti-Phospho-ATF-2 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA, 0.02% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Phospho-ATF-2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-ATF-2 Antibody - Protein Information

Name ATF2

Synonyms CREB2, CREBP1

Function

Transcriptional activator which regulates the transcription of various genes, including those involved in anti-apoptosis, cell growth, and DNA damage response. Dependent on its binding partner, binds to CRE (cAMP response element) consensus sequences (5'-TGACGTCA- 3') or to AP-1 (activator protein 1) consensus sequences (5'-TGACTCA- 3'). In the nucleus, contributes to global transcription and the DNA damage response, in addition to specific transcriptional activities that are related to cell development, proliferation and death. In the cytoplasm, interacts with and perturbs HK1- and VDAC1-containing complexes at the mitochondrial outer membrane, thereby impairing mitochondrial membrane potential, inducing mitochondrial leakage and promoting cell death. The phosphorylated form (mediated by ATM) plays a role in the DNA damage response and is involved in the ionizing radiation (IR)-induced S phase checkpoint control and in the recruitment of the MRN complex into the IR-induced foci (IRIF). Exhibits histone acetyltransferase (HAT) activity which specifically acetylates histones H2B and H4 in vitro (PubMed:10821277). In concert with CUL3 and RBX1, promotes the degradation of KAT5 thereby attenuating its ability to acetylate and activate ATM. Can elicit oncogenic or tumor suppressor activities depending on the tissue or cell type.

Cellular Location

Nucleus. Cytoplasm. Mitochondrion outer membrane. Note=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)

Tissue Location

Ubiquitously expressed, with more abundant expression in the brain

Phospho-ATF-2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-ATF-2 Antibody - Images**Phospho-ATF-2 Antibody - Background**

The transcription factor ATF-2 (also called CRE-BP1) is a member of the ATF/CREB family of leucine zipper proteins. ATF-2 forms homodimers and heterodimers with c-Jun to initiate CRE-dependent transcription. Phosphorylation of ATF-2 at Thr69 and Thr71 by stress-activated kinases is necessary for transcriptional activation. Myc also induces phosphorylation of ATF-2 at Thr69 and Thr71 to prolong the half-life of ATF-2. ATF-2 also functions as a histone acetyltransferase (HAT) by specifically acetylating histones H2B and H4 in vitro.