

ATF2 Antibody (Thr51)
Rabbit Polyclonal Antibody
Catalog # ALS11622**Specification**

ATF2 Antibody (Thr51) - Product Information

Application	IHC
Primary Accession	P15336
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55kDa KDa

ATF2 Antibody (Thr51) - Additional Information**Gene ID** 1386**Other Names**

Cyclic AMP-dependent transcription factor ATF-2, cAMP-dependent transcription factor ATF-2, 2.3.1.48, Activating transcription factor 2, Cyclic AMP-responsive element-binding protein 2, CREB-2, cAMP-responsive element-binding protein 2, HB16, Histone acetyltransferase ATF2, cAMP response element-binding protein CRE-BP1, ATF2, CREB2, CREBP1

Target/Specificity

Amino acids surrounding Threonine 51 or 69 of human ATF2

Reconstitution & Storage

Long term: -70°C; Short term: -20°C

Precautions

ATF2 Antibody (Thr51) is for research use only and not for use in diagnostic or therapeutic procedures.

ATF2 Antibody (Thr51) - 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

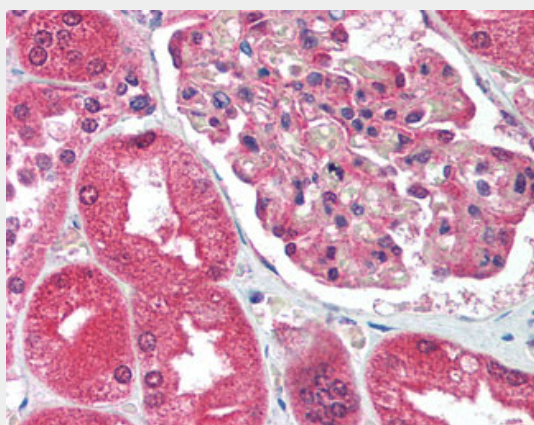
Ubiquitously expressed, with more abundant expression in the brain

ATF2 Antibody (Thr51) - 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](#)

ATF2 Antibody (Thr51) - Images



Anti-ATF2 antibody IHC of human kidney.

ATF2 Antibody (Thr51) - Background

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ATF2 Antibody (Thr51) - References

Maekawa T.,et al.EMBO J. 8:2023-2028(1989).
Yang L.,et al.J. Immunol. 158:2522-2525(1997).
Bailey J.,et al.J. Clin. Endocrinol. Metab. 87:1717-1728(2002).
von Hippel A.C.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 434:724-731(2005).