

AP02571PU-N**Polyclonal Antibody to ATF2 - Aff - Purified****Alternate names:**

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

Quantity:

0.1 mg

Concentration:

1.0 mg/ml

Background:

ATF2 (Activating Transcription Factor 2, CREBP, HB16, CREB2, TREB7) is a member of the ATF/CREB family of basic region leucine zipper DNA binding proteins that regulates transcription by binding to a consensus cAMP response element (CRE) in the promoter of various viral and cellular genes. Many of these genes are important in cell growth and differentiation, and in stress and immune responses. ATF2 is a nuclear protein that binds DNA as a dimer and can form dimers with members of the ATF/CREB and Jun/Fos families. It is a stronger activator as a heterodimer with cJun than as a homodimer. Several isoforms of ATF2 arise by differential splicing. The stable native full length ATF2 is transcriptionally inactive as a result of an inhibitory direct intramolecular interaction of its carboxy terminal DNA binding domain with the amino terminal transactivation domain. Following dimerization ATF2 becomes a short lived protein that undergoes ubiquitination and proteolysis, seemingly in a protein phosphatase-dependent mechanism. Stimulation of the transcriptional activity of ATF2 occurs following cellular stress induced by several genotoxic agents, inflammatory cytokines, and UV irradiation. This activation requires phosphorylation of two threonine residues in ATF2 by both JNK/SAP kinase and p38 MAP kinase. ATF2 is abundantly expressed in brain.

Uniprot ID:[P15336](#)**NCBI:**[NP_001871.2](#)**GeneID:**[1386](#)**Host:**

Rabbit

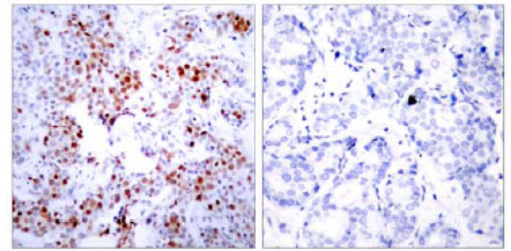
Immunogen:

Synthetic non-phosphopeptide derived from human ATF-2 around the phosphorylation site of serine 62 or 44 (N-D-SP-V-I).

Format:**State:** Liquid purified IgG fraction**Purification:** Affinity chromatography**Buffer System:** PBS(without Mg²⁺ and Ca²⁺), pH 7.4 containing 150mM NaCl, 0.02% sodium azide and 50% glycerol**Applications:****Western Blot:** 1/500 - 1/1000; Incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0,1% Tween-20 at 4°C with gentle shaking, overnight.**Immunohistochemistry on paraffin sections:** 1/50 - 1/100.**Immunofluorescence:** 1/100 - 1/200.

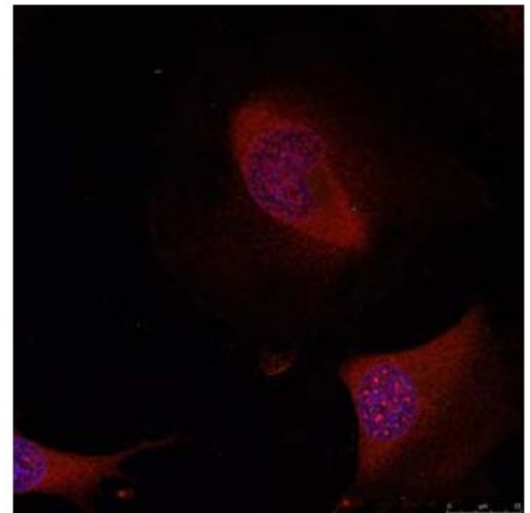
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** ATF-2 antibody detects endogenous levels of total ATF-2 protein.
Species: Human, Mouse, Rat.
Other species not tested.
- Storage:** Store the antibody at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.
- General Readings:**
1. Sevilla A, et al. (2004) J Biol Chem. 279(26):27458-27465.
 2. Sakurai A, et al. (1991) Biochem Biophys Res Commun. 181(2): 629-635.
 3. Abdel-Hafiz H A, et al. (1992) Mol Endocrinol. 6: 2079-2089.
 4. Gupta S, et al. (1995) Science. 267: 389-393.
 5. Van Dam H, et al. (1995) EMBO J. 14(8): 1798-1811.
- Pictures:** Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using ATF-2 antibody.

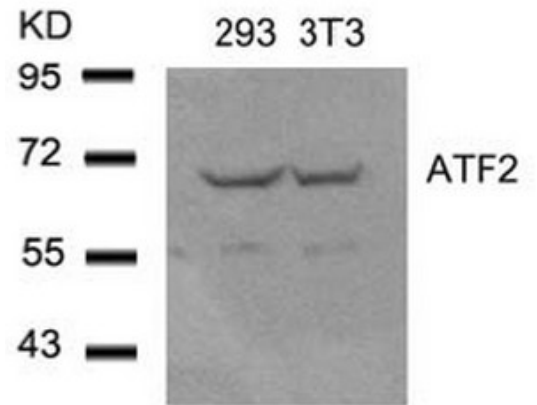


Peptide - +

Immunofluorescence staining of methanol-fixed HeLa cells using ATF2 antibody



Western blot analysis of extracts from 293 and 3T3 cells using ATF2 antibody



Western blot analysis of extracts from HeLa cells using ATF-2 antibody.

