

# **Product datasheet for AP02332PU-S**

## OriGene Technologies, Inc.

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### ATF2 pThr71/53 Rabbit Polyclonal Antibody

**Product data:** 

**Product Type:** Primary Antibodies

Applications: IHC, WB

Recommended Dilution: Suitable for use in Western blot (1:500~1:1000) and Immunohistochemistry (1:50~1:100).

Reactivity: Human

Host: Rabbit

Clonality: Polyclonal

**Immunogen:** The antiserum was produced against synthesized phosphopeptide derived from human ATF-

2 around the phosphorylation site of threonine 71 or 53 (T-P-TP-P-T).

**Specificity:** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using

epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site. ATF-2 (phospho-Thr71 or 53) antibody detects endogenous levels of ATF-2 only when

phosphorylated at threonine 71 or 53.

Formulation: Phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150 mM NaCl, 0.02% Sodium

Azide and 50% glycerol. State: Aff - Purified

State: Liquid purified Ig fraction.

**Concentration:** lot specific

**Purification:** Immunoaffinity chromatography.

**Conjugation:** Unconjugated

**Storage:** Store the antibody (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

**Stability:** Shelf life: One year from despatch.

**Gene Name:** activating transcription factor 2

Database Link: Entrez Gene 1386 Human

P15336





#### 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.

Synonyms:

ATF-2, CREB2, CREBP1, Activating transcription factor 2, CRE-BP1, HB16, CREB-2

#### **Product images:**

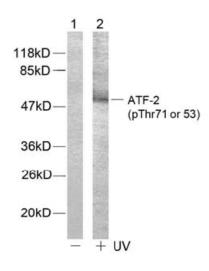


Figure 2. Western blot analysis of extract from HeLa cells, using ATF-2 (phospho-Thr71 or 53) antibody.



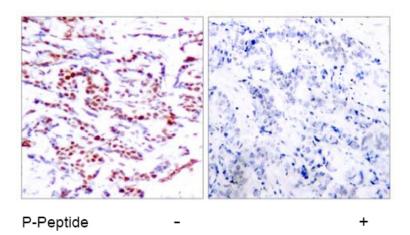


Figure 1. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using ATF-2 (phospho-Thr71 or 53) antibody.