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Rabbit Anti-phospho-ATF2 (Thr69 / Thr51) antibody

SL12538R

Product Name:	phospho-ATF2 (Thr69 / Thr51)
Chinese Name:	磷酸化活化复制因子2抗体
Alias:	phospho-ATF2 (Thr69)(human); phospho-ATF2 (Thr51)(mouse); ATF2 (phospho T69 + T51); phospho-ATF2 (Thr69 + Thr51); p-ATF2 (phospho T69 + T51); ATF2 (phospho Thr69 + Thr51); p-ATF2 (phospho Thr69 + Thr51); CREB 2; HB 16;Activating Transcription Factor 2; ATF 2; Atf-2; ATF2 protein; cAMP Response Element Binding Protein 2; cAMP response element binding protein CRE BP1; cAMP-dependent transcription factor ATF-2; cAMP-responsive element-binding protein 2; CRE BP1; CRE-BP; CREB 2; CREB2; CREBP1; Cyclic AMP dependent transcription factor ATF 2; Cyclic AMP-responsive; ATF2_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	52kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human ATF2 around the phosphorylation site of Thr69 + Thr51:DQ(p-T)PT
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized

	antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	ATF2 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. **Function:** Transcriptional activator, probably constitutive, which binds to the cAMP-responsive element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters. Interaction with JUN redirects JUN to bind to CRES preferentially over the 12-O-tetradecanoylphorbol-13-acetate response elements (TRES) as part of an ATF2/JUN complex. **Subunit:** Binds DNA as a dimer and can form a homodimer in the absence of DNA. Can form a heterodimer with JUN. Interacts with SMAD3 and SMAD4. Binds through its N-terminal region to UTF1 which acts as a coactivator of ATF2 transcriptional activity. **Subcellular Location:** Nucleus. **Tissue Specificity:** Abundant expression seen in the brain. **Post-translational modifications:** Phosphorylation of Thr-69 by MAPK14 and MAPK11, and at Thr-71 by MAPK1/ERK2, MAPK3/ERK1, MAPK11, MAPK12 and MAPK14 in response to external stimulus like insulin causes increased transcriptional activity. Phosphorylated by PLK3 following hyperosmotic stress. Also phosphorylated and activated by JNK and CaMK4.

Similarity:
Belongs to the bZIP family. ATF subfamily.
Contains 1 bZIP domain.
Contains 1 C2H2-type zinc finger.

SWISS:
P15336

Gene ID:
1386

Database links:

Entrez Gene: 1386Human

Entrez Gene: 100047997Mouse

Entrez Gene: 11909Mouse

Entrez Gene: 81647Rat

Omim: 123811Human

SwissProt: P15336Human

SwissProt: P16951Mouse

SwissProt: Q00969Rat

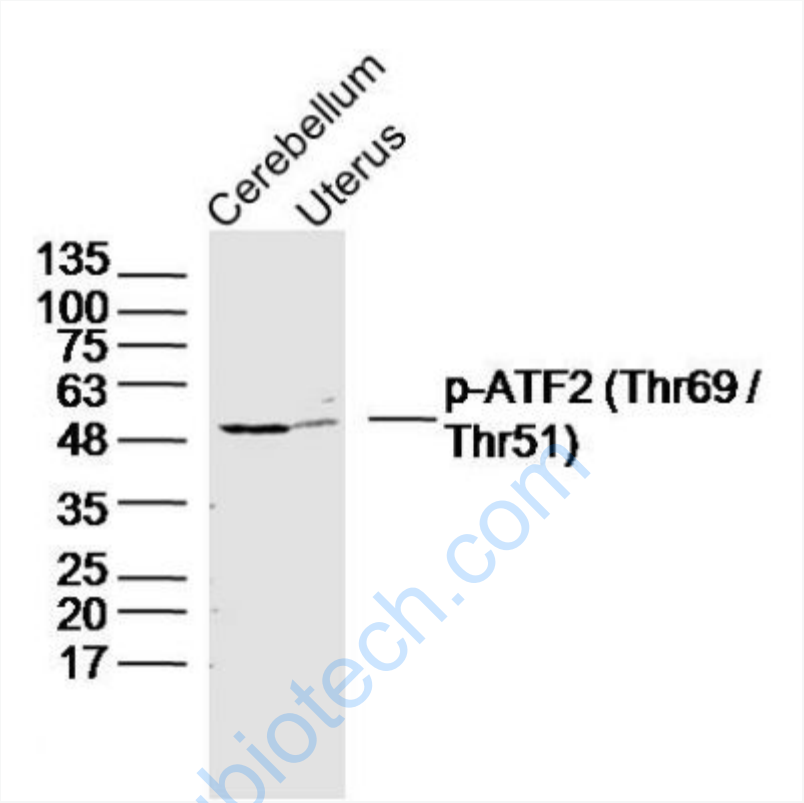
Unigene: 592510Human

Unigene: 209903Mouse

Unigene: 9825Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

Cerebellum (Mouse) Lysate at 40 ug

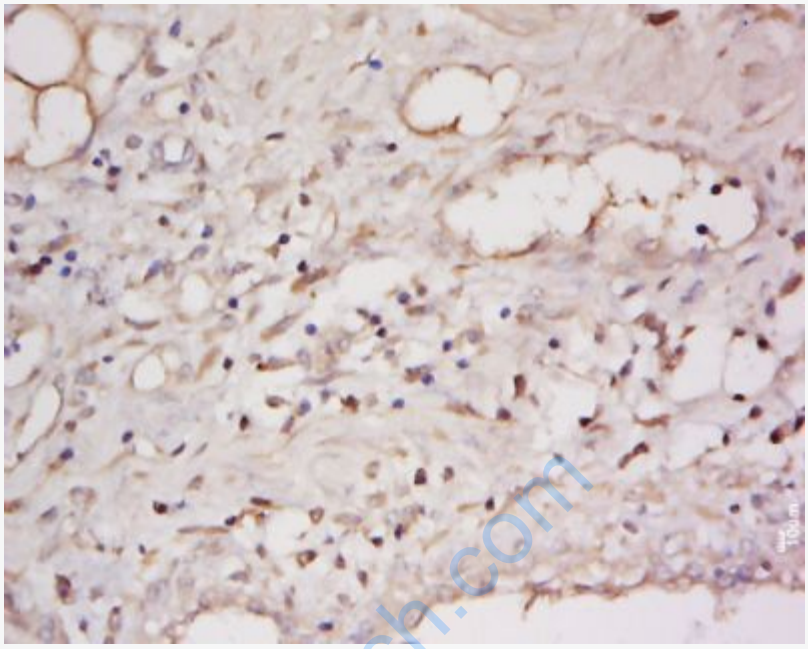
Uterus (Mouse) Lysate at 40 ug

Primary: Anti-phospho-ATF2 (Thr69 / Thr51) (SL12538R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 52 kD

Observed band size: 52 kD



Tissue/cell: human cervical carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-phospho-ATF2 (Thr69 / Thr51) Polyclonal Antibody, Unconjugated(SL12538R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining