



Rabbit Anti-ATF1 antibody

SL0517R

Product Name ATF1

Chinese Name 活化转录因子 1 抗体

Alias Activating Transcription Factor1; TREB36 protein; ATF 1; ATF1 EWS fusion gene ATF1 FUS fusion gene; cAMP dependent transcription factor 1; Cyclic AMP dependent transcription factor ATF 1; Cyclic AMP dependent transcription factor ATF1; EWS AFT1; FUS ATF 1; RNA binding protein activating transcription factor 1 fusion protein; TREB 36; TREB36; ATF1_HUMAN; TCR-ATF1.

Research Area Cell biology Signal transduction transcriptional regulatory factor

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, (predicted: Mouse, Rat,)
IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test
(Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 29kDa

Cellular localization The nucleus

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human ATF1: 201-271/271

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic

or diagnostic applications.

PubMed

[PubMed](#)

ATF1 (Activating Transcription Factor 1, TREB-36) is a member of the ATF/CREB family of basic region leucine-zipper (bZip) 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. The activation function of CRE-binding proteins may be modulated by phosphorylation of several kinases and is mediated by coactivators such as CREB-binding protein (CBP) and p300. ATF1 is a nuclear protein that binds DNA as a homodimer or as heterodimers with the inducible transcription factors CREB1 or CREM. Heterodimers appear to be stronger transcriptional activators than the homodimers. Tissue expression of ATF1 mRNA is widespread. Several isoforms of ATF1 arise by differential splicing. ATF1 mediates both Ca²⁺ and cAMP responses at several levels. It binds to the Tax-responsive element (TRE1) of the human T-cell lymphotropic virus type-I (HTLV1). ATF1 is detectable in metastatic melanoma cells and seems to contribute to their survival. A chimeric protein composed of the N-terminal domain of EWS (Ewing sarcoma oncogene) linked to the bZip domain of ATF1 is implicated in the rare malignant clear cell sarcoma of tendon sheath and aponeuroses (malignant melanoma of soft parts).

**Product
Detail**

Function:

This protein binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters. Binds to the Tax-responsive element (TRE) of HTLV-I. Mediates PKA-induced stimulation of CRE-reporter genes. Represses the expression of FTH1 and other antioxidant detoxification genes. Triggers cell proliferation and transformation.

Subunit:

Binds DNA as a dimer. Interacts with HIPK2 and CDK3.

Subcellular Location:

Nucleus.

Post-translational modifications:

Phosphorylated at Ser-198 by HIPK2 in response to genotoxic stress. This phosphorylation promotes transcription repression of FTH1 and other antioxidant detoxification genes. The CDK3-mediated phosphorylation at Ser-63 promotes its transactivation and transcriptional activities. Phosphorylated at Ser-63 by RPS6KA4 and RPS6KA5 in response to mitogenic or stress stimuli.

DISEASE:

Angiomatoid fibrous histiocytoma (AFH) [MIM:612160]: A distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. Characteristic microscopic features include lobulated sheets

of histiocyte-like cells intimately associated with areas of hemorrhage and cystic pseudovascular spaces, as well as a striking cuffing of inflammatory cells, mimicking a lymph node metastasis. Note=The gene represented in this entry may be involved in disease pathogenesis. Chromosomal aberrations involving ATF1 are found in patients with angiomatoid fibrous histiocytoma. Translocation t(12;16)(q13;p11.2) with FUS generates a chimeric ATF1/FUS protein. Translocation t(12;22)(q13;q12) with EWSR1 generates a chimeric ATF1/EWSR1 protein.

Similarity:

Belongs to the bZIP family. ATF subfamily.
Contains 1 bZIP (basic-leucine zipper) domain.
Contains 1 KID (kinase-inducible) domain.

SWISS:

P18846

Gene ID:

466

Database links:

[Entrez Gene: 466](#) Human

[Entrez Gene: 315305](#) Rat

[Omim: 123803](#) Human

[SwissProt: P18846](#) Human

[Unigene: 648565](#) Human

transcriptional regulatory factor (Transcriptin Regulators)

活化复制因子 1(属于 activation transcription factor/cAMP responsive element binding protein 家族)是真核细胞转录因子, 属于 ATF/CREB 家族。参与由 cAMP 或某些病毒蛋白质所诱导基因转录的调节。

此抗体识别分子量为 43kDa 的 ATF-1 蛋白。

ATF/CREB 家族相关蛋白

[SL0517R ATF-1 活化复制因子 1](#)

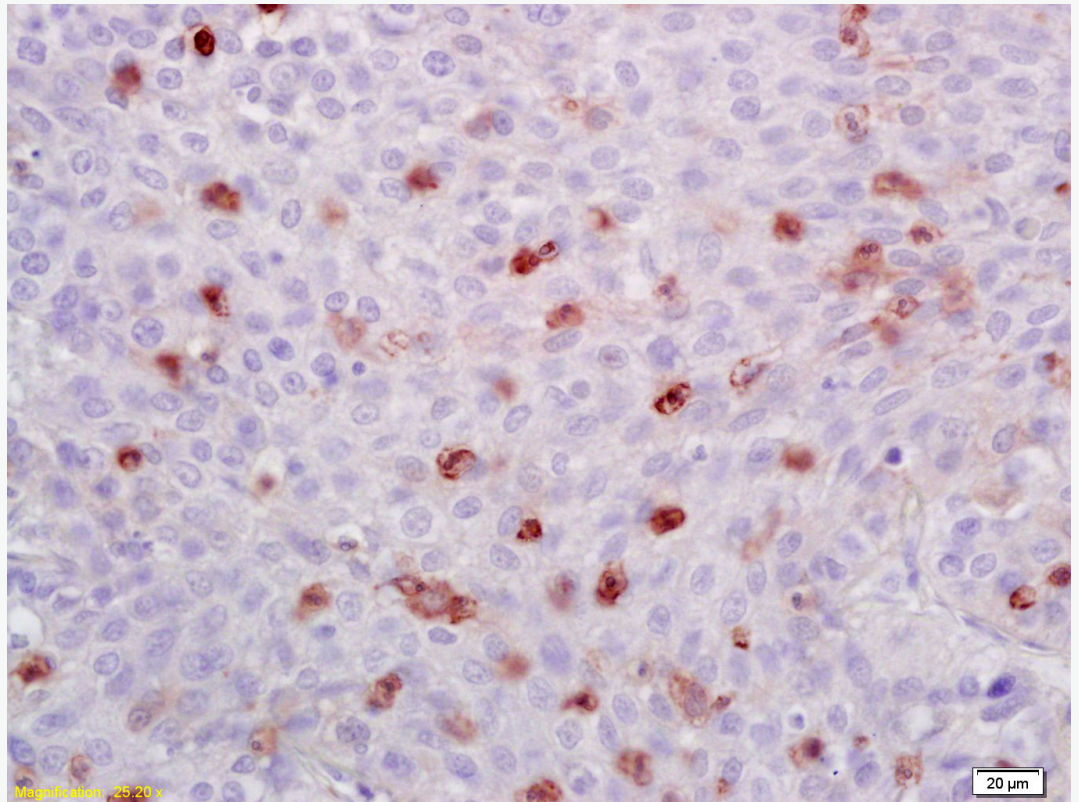
[SL0518R ATF-2 活化复制因子 2](#)

[SL0519R ATF-3 活化复制因子 3](#)

[SL0035M CREB 非磷酸化环腺苷酸应答元件 Binding protein \(抗体\)](#)

[SL0036R P-CREB 磷酸化环腺苷酸应答元件 Binding protein \(抗体\)](#)

**Product
Picture**



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

Antigen retrieval: citrate buffer (1M, 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°C for 20 min;

Incubation: Anti-ATf1 Polyclonal Antibody, Unconjugated(SL0517R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining