



# ATF5 Recombinant Monoclonal Antibody

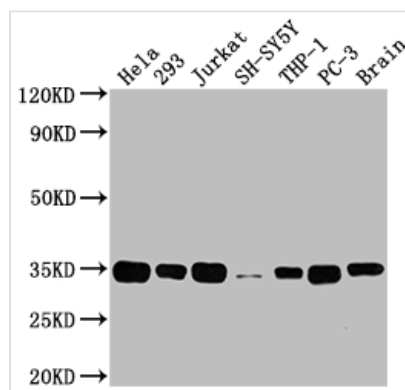
<b>Product Code</b>	CSB-RA180846A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	Q9Y2D1
<b>Immunogen</b>	A synthesized peptide derived from human ATF5
<b>Species Reactivity</b>	Human, Rat
<b>Tested Applications</b>	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
<b>Relevance</b>	<p>Transcription factor that either stimulates or represses gene transcription through binding of different DNA regulatory elements such as cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), ATF5-specific response element (ARE) (consensus: 5'-C[CT]TCT[CT]CCTT[AT]-3') but also the amino acid response element (AARE), present in many viral and cellular promoters. Critically involved, often in a cell type-dependent manner, in cell survival, proliferation, and differentiation (PubMed:10373550, PubMed:15358120, PubMed:21212266, PubMed:20654631). Its transcriptional activity is enhanced by CCND3 and slightly inhibited by CDK4 (PubMed:15358120). Important regulator of the cerebral cortex formation, functions in cerebral cortical neuroprogenitor cells to maintain proliferation and to block differentiation into neurons. Must be down-regulated in order for such cells to exit the cycle and differentiate (By similarity). Participates in the pathways by which SHH promotes cerebellar granule neuron progenitor cells proliferation (By similarity). Critical for survival of mature olfactory sensory neurons (OSN), directs expression of OSN-specific genes (By similarity). May be involved in osteogenic differentiation (PubMed:22442021). Promotes cell proliferation and survival by inducing the expression of EGR1 synergistically with ELK1. Once acetylated by EP300, binds to ARE sequences on target genes promoters, such as BCL2 and EGR1 (PubMed:21791614). Plays an anti-apoptotic role through the transcriptional regulation of BCL2, this function seems to be cell type-dependent (By similarity). Cooperates with NR1I3/CAR in the transcriptional activation of CYP2B6 in liver (PubMed:18332083). In hepatic cells, represses CRE-dependent transcription and inhibits proliferation by blocking at G2/M phase (PubMed:22528486, PubMed:18701499). May act as a negative regulator of IL1B transduction pathway in liver (PubMed:24379400). Upon IL1B stimulus, cooperates with NLK to activate the transactivation activity of C/EBP subfamily members (PubMed:25512613). Besides its function of transcription factor, acts as a cofactor of CEBPB to activate CEBPA and promote adipocyte differentiation (PubMed:24216764). Regulates centrosome dynamics in a cell-cycle- and centriole-age-dependent manner. Forms 9-foci symmetrical ring scaffold around the mother centriole to control centrosome function and the interaction between centrioles and pericentriolar material (PubMed:26213385).</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium



azide and 50% glycerol.

<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Epigenetics and Nuclear Signaling
<b>Gene Names</b>	ATF5
<b>Clone No.</b>	9D8

## Image

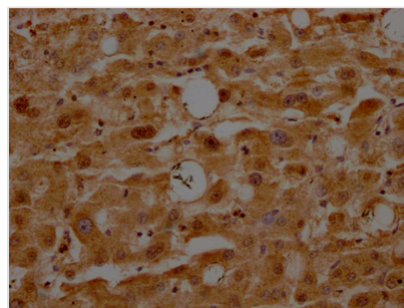


### Western Blot

Positive WB detected in: HeLa whole cell lysate, 293 whole cell lysate, Jurkat whole cell lysate, SH-SY5Y whole cell lysate, THP-1 whole cell lysate, PC-3 whole cell lysate, Rat brain tissue  
All lanes: ATF5 antibody at 1:2000

### Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution  
Predicted band size: 31 kDa  
Observed band size: 35 kDa



IHC image of CSB-RA180846A0HU diluted at 1:100 and staining in paraffin-embedded human liver tissue performed on a Leica Bond<sup>TM</sup> system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

## Description

The ATF5 recombinant antibody is prepared using protein and DNA recombinant technology. To produce the antibody, mice were first immunized with a synthetic peptide derived from human ATF5. After a certain period of time, spleen cells were collected under aseptic conditions, and total RNA was extracted from spleen cells and then converted into cDNA synthesized through RNA reverse transcription. The cDNA was used as a template for PCR amplification of the ATF5 antibody gene. The resulting ATF5 antibody gene was then introduced into a vector and transfected into host cells for culturing. The ATF5 recombinant monoclonal antibody was purified from the supernatant of the cell culture using affinity chromatography and rigorously verified. It can be utilized in ELISA, WB, and IHC experiments for the detection of human and rat ATF5 proteins.



ATF5 is a transcription factor protein that plays a role in the regulation of gene expression. It belongs to the ATF/CREB family of transcription factors and is involved in various cellular processes such as apoptosis, cell differentiation, and proliferation. ATF5 has been implicated in the regulation of neuronal survival and differentiation, as well as in the pathogenesis of various diseases such as cancer, neurodegenerative disorders, and cardiovascular diseases. It has also been shown to be involved in the response to cellular stress such as oxidative stress, hypoxia, and endoplasmic reticulum stress.