

Anti-ATF7 Antibody

Rabbit polyclonal antibody to ATF7

Catalog # AP60092

Product Information

Application	WB, IF/IC
Primary Accession	P17544
Other Accession	Q8R0S1
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51757

Additional Information

Gene ID	11016
Other Names	ATFA; Cyclic AMP-dependent transcription factor ATF-7; cAMP-dependent transcription factor ATF-7; Activating transcription factor 7; Transcription factor ATF-A
Target/Specificity	Recognizes endogenous levels of ATF7 protein.
Dilution	WB~~WB (1/500 - 1/1000), IF/IC (1/100 - 1/500) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ATF7
Synonyms	ATFA
Function	Stress-responsive chromatin regulator that plays a role in various biological processes including innate immunological memory, adipocyte differentiation or telomerase regulation (PubMed: 29490055). In absence of stress, contributes to the formation of heterochromatin and heterochromatin-like structure by recruiting histone H3K9 tri- and di-methyltransferases thus silencing the transcription of target genes such as STAT1 in adipocytes, or genes involved in innate immunity in macrophages and adipocytes (By similarity). Stress induces ATF7 phosphorylation that disrupts interactions with histone methyltransferase and enhances the association with coactivators containing histone acetyltransferase and/or histone demethylase, leading to disruption of the heterochromatin-like structure and

subsequently transcriptional activation (By similarity). In response to TNF-alpha, which is induced by various stresses, phosphorylated ATF7 and telomerase are released from telomeres leading to telomere shortening (PubMed:[29490055](#)). Also plays a role in maintaining epithelial regenerative capacity and protecting against cell death during intestinal epithelial damage and repair (By similarity).

Cellular Location

Nucleus {ECO:0000255 | PROSITE-ProRule:PRU00978, ECO:0000269 | PubMed:17264123}. Nucleus, nucleoplasm. Chromosome, telomere. Note=Mainly nucleoplasmic. Restricted distribution to the perinuclear region. The sumoylated form locates to the nuclear periphery

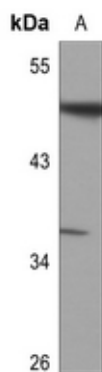
Tissue Location

Expressed in various tissues including heart, brain, placenta, lung and skeletal muscle. Highest levels in skeletal muscle. Lowest in lung and placenta.

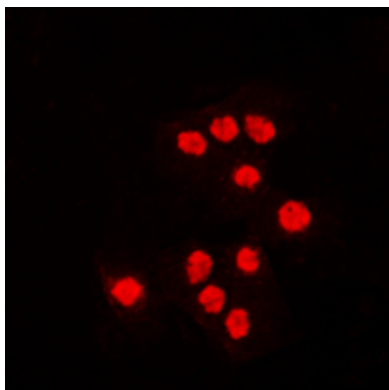
Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ATF7. The exact sequence is proprietary.

Images



Western blot analysis of ATF7 expression in rat lung (A) whole cell lysates.



Immunofluorescent analysis of ATF7 staining in Jurkat cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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