

Anti-ATF7 Antibody
Rabbit polyclonal antibody to ATF7
Catalog # AP60092

Specification

Anti-ATF7 Antibody - Product Information

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

Anti-ATF7 Antibody - 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~~WB (1/500 - 1/1000), IF/IC (1/100 - 1/500)

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

Anti-ATF7 Antibody - 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

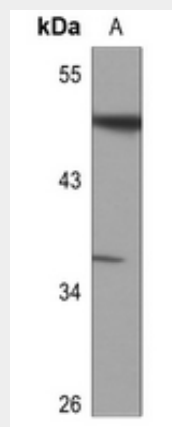
Expressed in various tissues including heart, brain, placenta, lung and skeletal muscle. Highest levels in skeletal muscle. Lowest in lung and placenta.

Anti-ATF7 Antibody - Protocols

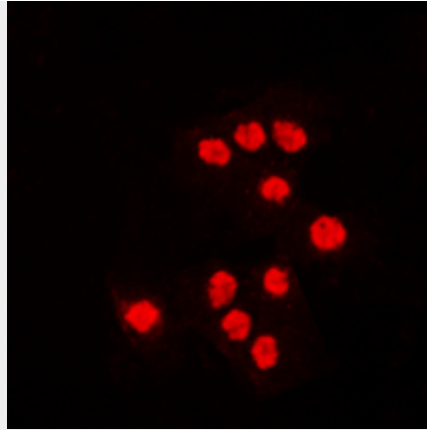
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-ATF7 Antibody - 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.

Anti-ATF7 Antibody - Background

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