

**Goat Anti-ATF7 Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1124a

## Specification

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### Goat Anti-ATF7 Antibody - Product Information

Application	IHC, WB
Primary Accession	<a href="#">P17544</a>
Other Accession	<a href="#">NP_001123532</a> , <a href="#">11016</a>
Reactivity	Human
Predicted	Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	51757

### Goat Anti-ATF7 Antibody - Additional Information

**Gene ID** 11016

#### Other Names

Cyclic AMP-dependent transcription factor ATF-7, cAMP-dependent transcription factor ATF-7, Activating transcription factor 7, Transcription factor ATF-A, ATF7, ATFA

#### Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Goat Anti-ATF7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Goat 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:<a href="http://www.uniprot.org/citations/29490055" target="\_blank">29490055</a>). 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:<a href="http://www.uniprot.org/citations/29490055" target="\_blank">29490055</a>). 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**

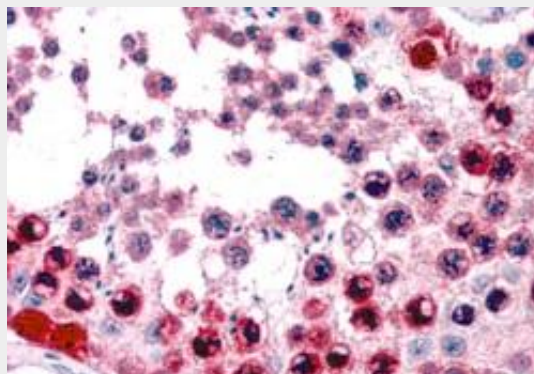
Expressed in various tissues including heart, brain, placenta, lung and skeletal muscle. Highest levels in skeletal muscle. Lowest in lung and placenta.

### **Goat Anti-ATF7 Antibody - Protocols**

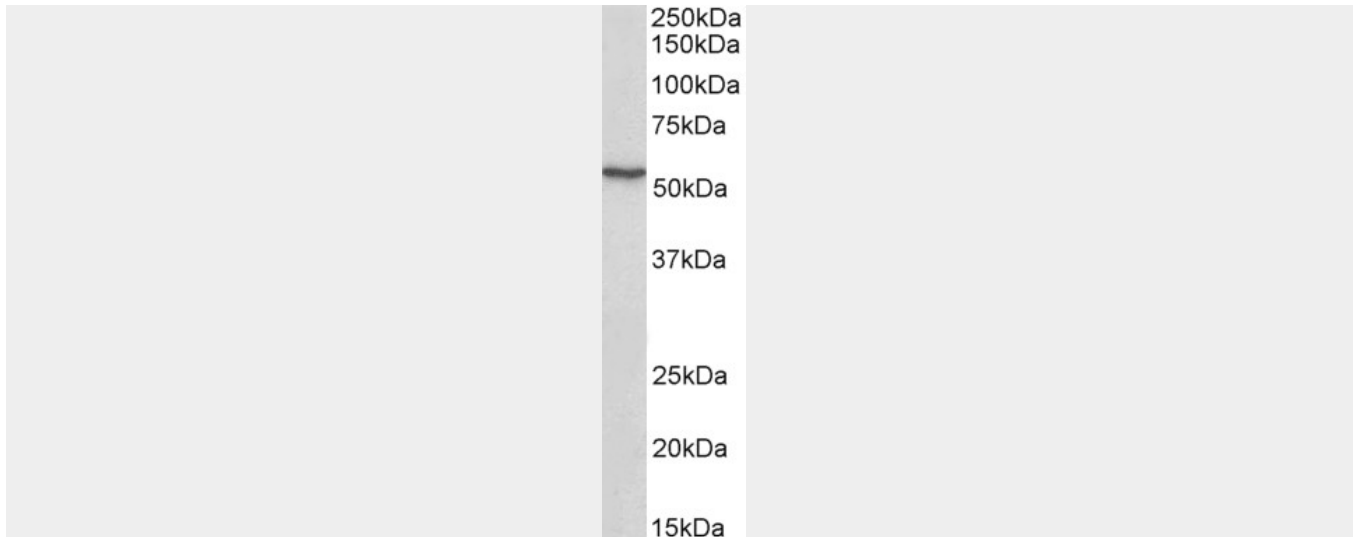
Provided below are standard protocols that you may find useful for product applications.

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

### **Goat Anti-ATF7 Antibody - Images**



AF1124a (3.8 µg/ml) staining of paraffin embedded Human Testis. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB05244 (1 $\mu$ g/ml) staining of Human Heart lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.

#### **Goat Anti-ATF7 Antibody - References**

A genome-wide association study in 19 633 Japanese subjects identified LHX3-QSOX2 and IGF1 as adult height loci. Okada Y, et al. Hum Mol Genet, 2010 Jun 1. PMID 20189936.

p38beta2-mediated phosphorylation and sumoylation of ATF7 are mutually exclusive. Camuzeaux B, et al. J Mol Biol, 2008 Dec 26. PMID 18950637.

IRF2-binding protein-1 is a JDP2 ubiquitin ligase and an inhibitor of ATF2-dependent transcription. Kimura M. FEBS Lett, 2008 Aug 20. PMID 18671972.

Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. Mol Cell Proteomics, 2008 Mar. PMID 18029348.

Sumoylation delays the ATF7 transcription factor subcellular localization and inhibits its transcriptional activity. Hamard PJ, et al. Nucleic Acids Res, 2007. PMID 17264123.