10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATF7 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8844a

Specification

ATF7 Antibody (N-term) - Product Information

Application	**IF, WB, FC,E**
Primary Accession	P17544
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**51757**
Antigen Region	**68-96**

ATF7 Antibody (N-term) - 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

Target/Specificity
This ATF7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 68-96 amino acids from the N-terminal region of human ATF7.

Dilution
IF~~1:10~50
WB~~1:1000
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
ATF7 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ATF7 Antibody (N-term) - 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.

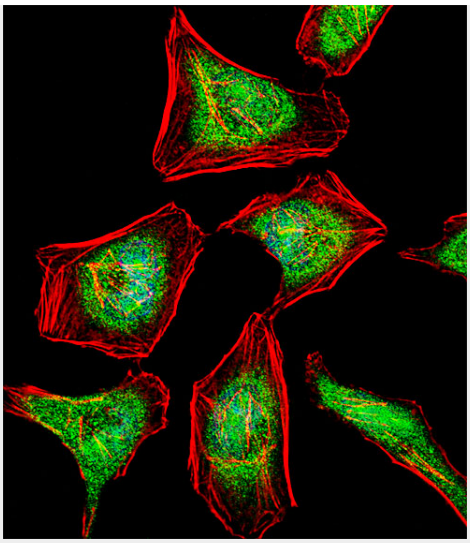
ATF7 Antibody (N-term) - Protocols

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

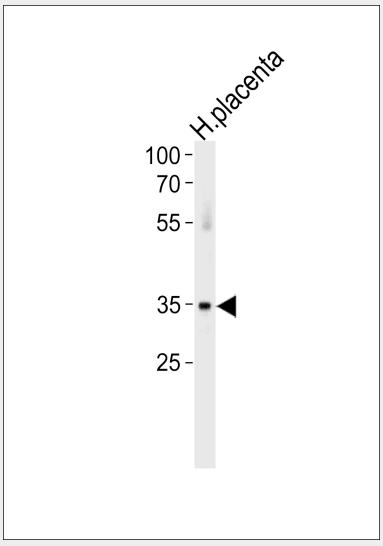
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATF7 Antibody (N-term) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

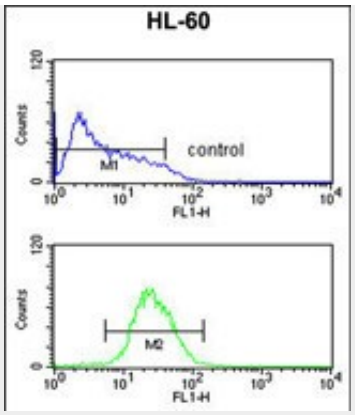


Fluorescent confocal image of Hela cell stained with ATF7 Antibody (N-term)(Cat#AP8844a).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with ATF7 primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min).ATF7 immunoreactivity is localized to Nucleus and Cytoplasm significantly.



ATF7 Antibody (N-term) (Cat. #AP8844a) western blot analysis in huamn placenta tissue lysates (35ug/lane).This demonstrates the ATF7 antibody detected the ATF7 protein (arrow).

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



ATF7 Antibody (N-term) (Cat. #AP8844a) flow cytometric analysis of HL-60 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ATF7 Antibody (N-term) - Background

The cyclic AMP-dependent transcription factor ATF7 is a member of the bZIP family of proteins and is known to bind to the cAMP response element (CRE) as a homodimer.

ATF7 Antibody (N-term) - References

Hamard,P.J.,et.al., Oncogene 24 (21), 3472-3483 (2005)