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ATF7 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP8844a

Specification

ATF7 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P17544

ATF7 Antibody (N-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP8844a was selected from the N-term region of human ATF7. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ATF7 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- Blocking Peptides

ATF7 Antibody (N-term) Blocking Peptide - Images

ATF7 Antibody (N-term) Blocking Peptide - Background

ATF7 is binding the cAMP response element (CRE) (consensus: 5'-GTGACGT[AG][AG]-3'), a sequence present in many viral and cellular promoters.

ATF7 Antibody (N-term) Blocking Peptide - References

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