

**NFATC1 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP13900b****Specification**

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**NFATC1 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [O95644](#)**NFATC1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 4772**Other Names**

Nuclear factor of activated T-cells, cytoplasmic 1, NF-ATc1, NFATc1, NFAT transcription complex cytosolic component, NF-ATc, NFATc, NFATC1, NFAT2, NFATC

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP13900b was selected from the C-term region of NFATC1. 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.

**NFATC1 Antibody (C-term) Blocking peptide - Protein Information****Name** NFATC1**Synonyms** NFAT2, NFATC**Function**

Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2 or IL-4 gene transcription. Also controls gene expression in embryonic cardiac cells. Could regulate not only the activation and proliferation but also the differentiation and programmed death of T-lymphocytes as well as lymphoid and non-lymphoid cells (PubMed:&lt;a href="http://www.uniprot.org/citations/10358178" target="\_blank"&gt;10358178&lt;/a&gt;). Required for osteoclastogenesis and regulates many genes important for osteoclast differentiation and function (By similarity).

**Cellular Location**

Cytoplasm. Nucleus. Note=Cytoplasmic for the phosphorylated form and nuclear after activation

that is controlled by calcineurin- mediated dephosphorylation. Rapid nuclear exit of NFATC is thought to be one mechanism by which cells distinguish between sustained and transient calcium signals. Translocation to the nucleus is increased in the presence of calcium in pre-osteoblasts (By similarity). The subcellular localization of NFATC plays a key role in the regulation of gene transcription (PubMed:16511445). Nuclear translocation of NFATC1 is enhanced in the presence of TNFSF11. Nuclear translocation is decreased in the presence of FBN1 which can bind and sequester TNFSF11 (By similarity). {ECO:0000250|UniProtKB:O88942, ECO:0000269|PubMed:16511445}

#### **Tissue Location**

Expressed in thymus, peripheral leukocytes as T- cells and spleen. Isoforms A are preferentially expressed in effector T-cells (thymus and peripheral leukocytes) whereas isoforms B and isoforms C are preferentially expressed in naive T-cells (spleen) Isoforms B are expressed in naive T-cells after first antigen exposure and isoforms A are expressed in effector T-cells after second antigen exposure. Isoforms IA are widely expressed but not detected in liver nor pancreas, neural expression is strongest in corpus callosum Isoforms IB are expressed mostly in muscle, cerebellum, placenta and thymus, neural expression in fetal and adult brain, strongest in corpus callosum.

#### **NFATC1 Antibody (C-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

#### **NFATC1 Antibody (C-term) Blocking peptide - Images**

#### **NFATC1 Antibody (C-term) Blocking peptide - Background**

The product of this gene is a component of the nuclearfactor of activated T cells DNA-binding transcription complex. Thiscomplex consists of at least two components: a preexistingcytosolic component that translocates to the nucleus upon T cellreceptor (TCR) stimulation, and an inducible nuclear component. Proteins belonging to this family of transcription factors play acentral role in inducible gene transcription during immuneresponse. The product of this gene is an inducible nuclearcomponent. It functions as a major molecular target for theimmunosuppressive drugs such as cyclosporin A. Five transcriptvariants encoding distinct isoforms have been identified for thisgene. Different isoforms of this protein may regulate inducibleexpression of different cytokine genes.

#### **NFATC1 Antibody (C-term) Blocking peptide - References**

Liu, Y.J., et al. Obesity (Silver Spring) 18(12):2339-2346(2010)Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Chen, C., et al. Biocell 34(2):57-63(2010)Davila, S., et al. Genes Immun. 11(3):232-238(2010)Amaral, F.R., et al. J. Oral Pathol. Med. 39(3):269-274(2010)