

**Goat Anti-NFATC3 / NFAT4 Antibody (internal region (near N Terminus))**  
**Purified Goat Polyclonal Antibody**  
**Catalog # AF4162a**

**Specification**

---

**Goat Anti-NFATC3 / NFAT4 Antibody (internal region (near N Terminus)) - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q12968</a>
Other Accession	<a href="#">NP_775188.1</a> , <a href="#">NP_004546.1</a> , <a href="#">NP_775186.1</a> , <a href="#">NP_775187.1</a>
Reactivity	Human
Predicted	Human, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5
Calculated MW	115594

**Goat Anti-NFATC3 / NFAT4 Antibody (internal region (near N Terminus)) - Additional Information**

**Gene ID** 4775

**Other Names**

NFATC3; nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3; NFAT4; NFATX; T cell transcription factor NFAT4; nuclear factor of activated T-cells c3 isoform IE-Xa; nuclear factor of activated T-cells, cytoplasmic 3

**Dilution**

WB~~1:1000  
E~~N/A

**Format**

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

**Immunogen**

Peptide with sequence C-HQELDAHEDDLQIN, from the internal region (near N Terminus) of the protein sequence according to [NP\\_775188.1](#); [NP\\_004546.1](#); [NP\\_775186.1](#); [NP\\_775187.1](#).

**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-NFATC3 / NFAT4 Antibody (internal region (near N Terminus)) is for research use only and not for use in diagnostic or therapeutic procedures.

## **Goat Anti-NFATC3 / NFAT4 Antibody (internal region (near N Terminus)) - Protein Information**

**Name** NFATC3 ([HGNC:7777](#))

### **Function**

Acts as a regulator of transcriptional activation. Binds to the TNFSF11/RANKL promoter region and promotes TNFSF11 transcription (By similarity). Binding to the TNFSF11 promoter region is increased by high levels of Ca(2+) which induce NFATC3 expression and may lead to regulation of TNFSF11 expression in osteoblasts (By similarity). Plays a role in promoting mesenteric arterial wall remodeling in response to the intermittent hypoxia-induced increase in EDN1 and ROCK signaling (By similarity). As a result NFATC3 colocalizes with F-actin filaments, translocates to the nucleus and promotes transcription of the smooth muscle hypertrophy and differentiation marker ACTA2 (By similarity). Promotes lipopolysaccharide-induced apoptosis and hypertrophy in cardiomyocytes (By similarity). Following JAK/STAT signaling activation and as part of a complex with NFATC4 and STAT3, binds to the alpha-beta E4 promoter region of CRYAB and activates transcription in cardiomyocytes (By similarity). In conjunction with NFATC4, involved in embryonic heart development via maintenance of cardiomyocyte survival, proliferation and differentiation (By similarity). Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2 (PubMed:<a href="http://www.uniprot.org/citations/18815128" target="\_blank">18815128</a>). Required for thymocyte maturation during DN3 to DN4 transition and during positive selection (By similarity). Positively regulates macrophage-derived polymicrobial clearance, via binding to the promoter region and promoting transcription of NOS2 resulting in subsequent generation of nitric oxide (By similarity). Involved in Ca(2+)-mediated transcriptional responses upon Ca(2+) influx via ORAI1 CRAC channels.

### **Cellular Location**

Cytoplasm. Nucleus. Note=The subcellular localization of NFATC plays a key role in the regulation of gene transcription (By similarity). Rapid nuclear exit of NFATC is thought to be one mechanism by which cells distinguish between sustained and transient calcium signals (By similarity). Cytoplasmic when phosphorylated and nuclear after activation, that is controlled by calcineurin-mediated dephosphorylation (By similarity). Translocation to the nucleus is increased in the presence of calcium in pre-osteoblasts (By similarity). Translocates to the nucleus in the presence of EDN1 following colocalization with F-actin filaments, translocation is ROCK- dependent (By similarity). Translocates to the nucleus in response to lipopolysaccharide treatment of macrophages (By similarity) {ECO:0000250|UniProtKB:P97305}

### **Tissue Location**

[Isoform 1]: Predominantly expressed in thymus and is also found in peripheral blood leukocytes and kidney [Isoform 3]: Expressed in thymus and kidney.

## **Goat Anti-NFATC3 / NFAT4 Antibody (internal region (near N Terminus)) - 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-NFATC3 / NFAT4 Antibody (internal region (near N Terminus)) - Images**



AF4162a (0.03 µg/ml) staining of Jurkat nuclear lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

**Goat Anti-NFATC3 / NFAT4 Antibody (internal region (near N Terminus)) - References**

A constitutively nuclear form of NFATx shows efficient transactivation activity and induces differentiation of CD4(+)CD8(+) T cells. Amasaki Y, Adachi S, Ishida Y, Iwata M, Arai N, Arai K, Miyatake S, J. Biol. Chem. 2002 Jul 277 (28): 25640-8.