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NFATc3 Polyclonal Antibody
Catalog # AP71266

Specification

NFATc3 Polyclonal Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q12968
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**

NFATc3 Polyclonal Antibody - Additional Information

Gene ID 4775

Other Names
NFATC3; NFAT4; Nuclear factor of activated T-cells; cytoplasmic 3; NF-ATc3; NFATc3; NFATx; T-cell transcription factor NFAT4; NF-AT4

Dilution
WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.
IHC-P~~N/A

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

NFATc3 Polyclonal Antibody - 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:18815128). 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}

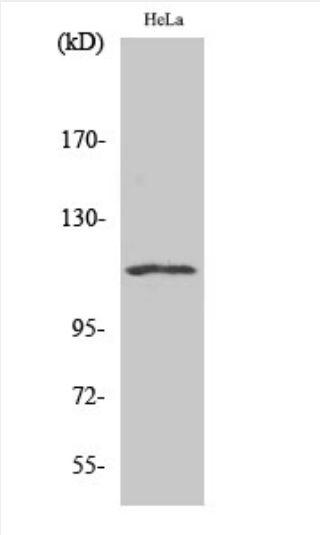
Tissue Location
[Isoform 1]: Predominantly expressed in thymus and is also found in peripheral blood leukocytes and kidney [Isoform 3]: Expressed in thymus and kidney.

NFATc3 Polyclonal 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 Cytomety
- Cell Culture

NFATc3 Polyclonal Antibody - Images



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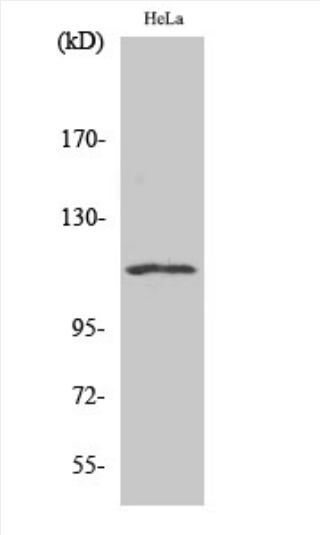

NFATc3 Polyclonal Antibody - Background

Acts as a regulator of transcriptional activation. Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2 (PubMed:18815128). Along with NFATC4, involved in embryonic heart development (By similarity).