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NFATc3 Polyclonal Antibody

Catalog # AP71266

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q12968
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	115594

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 IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

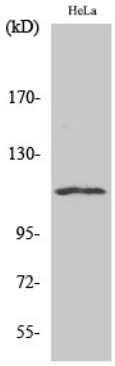
Name	NFATC3 (HGNC:7777)
Function	Acts as a regulator of transcriptional activation. Binds to the TNFSF11/RANKL promoter region and promotes TNFSF11 transcription (By similarity). Binding to the TNFSF11 promoter region is increased by high levels of Ca(2+) which induce NFATC3 expression and may lead to 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.

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).

Images



Western Blot analysis of various cells using NFATc3 Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.