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NFATC3 Rabbit pAb

Catalog # AP100194

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q12968
Other Accession	Q12968
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	115594
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NFAT4
Epitope Specificity	651-750/1075
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 RHD (Rel-like) domain.
SUBUNIT	Member of the multicomponent NFATC transcription complex that consists of at least two components, a pre-existing cytoplasmic component NFATC2 and an inducible nuclear component NFATC1. Other members such as NFATC4, NFATC3 or members of the activating protein-1 family, MAF, GATA4 and Cbp/p300 can also bind the complex. NFATC proteins bind to DNA as monomers.
Post-translational modifications	Phosphorylated by NFATC-kinase; dephosphorylated by calcineurin.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2.

Additional Information

Gene ID	4775
Other Names	NF-AT4c; NFAT4; NFATX; n339260; D8Ertd281e; NFAC3_HUMAN; NFATC3; NF-ATc3; T-cell transcription factor NFAT4 (NF-AT4 | NF-AT4c); NFAC3_MOUSE; T-cell transcription factor NFAT4; nuclear factor of activated T cells 3; nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3; nuclear factor of activated T-cells 3
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

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