Best Tools for immunology Research

NFATc4 (phospho Ser676) Polyclonal Antibody

Catalog No :	YP0313
Reactivity :	Human;Mouse
Applications :	WB;IHC;IF;ELISA
Target :	NFAT3
Fields :	>>cGMP-PKG signaling pathway;>>Cellular senescence;>>Wnt signaling pathway;>>Axon guidance;>>C-type lectin receptor signaling pathway;>>Oxytocin signaling pathway;>>Hepatitis B;>>Human cytomegalovirus infection;>>Human T-cell leukemia virus 1 infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Human immunodeficiency virus 1 infection
Gene Name :	NFATC4
Protein Name :	Nuclear factor of activated T-cells cytoplasmic 4
Human Gene Id :	4776
Human Swiss Prot No :	Q14934
Mouse Gene Id :	73181
Mouse Swiss Prot No :	Q8K120
Immunogen :	The antiserum was produced against synthesized peptide derived from human NFAT3 around the phosphorylation site of Ser676. AA range:642-691
Specificity :	Phospho-NFATc4 (S676) Polyclonal Antibody detects endogenous levels of NFATc4 protein only when phosphorylated at S676.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 120kD

Cell Pathway : MAPK_ERK_Growth;MAPK_G_Protein;WNT;WNT-T CELLAxon guidance;VEGF;Natural killer cell mediated cytotoxicity;T_Cell_Receptor;B_Cell_Antigen;

Background : This gene encodes a member of the nuclear factor of activated T cells (NFAT) protein family. The encoded protein is part of a DNA-binding transcription complex. This complex consists of at least two components: a preexisting cytosolic component that translocates to the nucleus upon T cell receptor stimulation and an inducible nuclear component. NFAT proteins are activated by the calmodulin-dependent phosphatase, calcineurin. The encoded protein plays a role in the inducible expression of cytokine genes in T cells, especially in the induction of interleukin-2 and interleukin-4. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014],

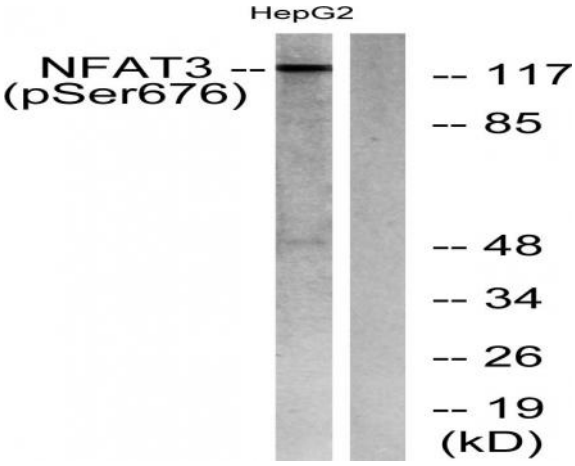
Function : domain:Rel Similarity Domain (RSD) allows DNA-binding and cooperative interactions with AP1 factors.,function:Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2 and IL-4. Transcriptionally repressed by estrogen receptors; this inhibition is further enhanced by estrogen. Increases the transcriptional activity of PPARG and has a direct role in adipocyte differentiation. May play an important role in myotube differentiation. May play a critical role in cardiac development and hypertrophy. May play a role in deafferentation-induced apoptosis of sensory neurons.,PTM:Phosphorylated by NFATC-kinases; dephosphorylated by calcineurin. Phosphorylated on Ser-168 and Ser-170 by FRAP1, IRAK1, MAPK7 and MAPK14, on Ser-213 and Ser-217 by MAPK8 and MAPK9, and on Ser-289 and Ser-344 by RPS6KA3. Phosphorylated by GSK3B.,PTM:Ubiquitinated, leading

Subcellular Location : Cytoplasm, cytosol . Nucleus . When hyperphosphorylated, localizes in the cytosol. When intracellular Ca(2+) levels increase, dephosphorylation by calcineurin/PPP3CA leads to translocation into the nucleus (PubMed:11997522, PubMed:18347059). MAPK7/ERK5 and MTOR regulate NFATC4 nuclear export through phosphorylation at Ser-168 and Ser-170 (PubMed:18347059). .

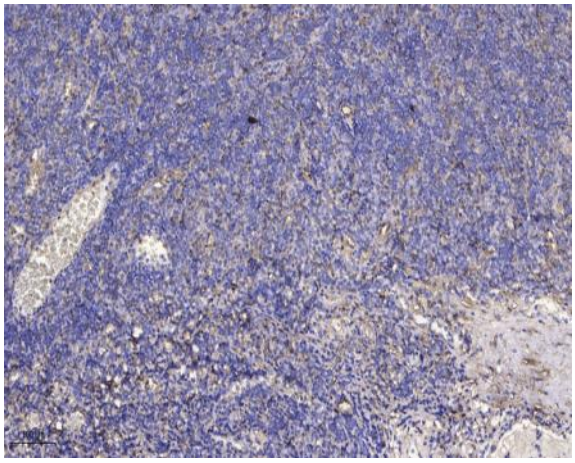
Expression : Widely expressed, with high levels in placenta, lung, kidney, testis and ovary (PubMed:18675896). Weakly expressed in spleen and thymus (PubMed:18675896). In the hippocampus, expressed in the granular layer of the dentate gyrus, in the pyramidal neurons of CA3 region, and in the hippocampal

fissure (PubMed:18675896). Expressed in the heart (at protein level) (PubMed:12370307).

Products Images



Western blot analysis of lysates from HepG2 cells treated with Ca2+ 40uM 30', using NFAT3 (Phospho-Ser676) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).