
Product Name: NFAT2 (Phospho-Ser172) Rabbit Polyclonal Antibody**Catalog #: APRab05820**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human, Mouse, Rat
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000
Molecular Weight	104kDa

Antigen Information

Gene Name	NFATC1
Alternative Names	Nuclear factor of activated T-cells, cytoplasmic 1 (NF-ATc1) (NFATc1) (NFAT transcription complex cytosolic component) (NF-ATc) (NFATc)
Gene ID	4772.0
SwissProt ID	O95644
Immunogen	Synthesized peptide derived from human NFAT2 (Phospho-Ser172)

Background

alternative products: Isoform C-alpha and isoform C-beta are the strongest activator of gene transcription, followed by isoform

A-alpha and isoform A-beta, whereas isoform B-alpha and isoform B-beta are the weakest. Isoform B-alpha, isoform B-beta, isoform C-alpha and isoform C-beta, both present in T-cells, can modulate their transcriptional activity, domain: Isoforms C have a C-terminal part with an additional trans-activation domain, TAD-B, which acts as a transcriptional activator. Isoforms B have a shorter C-terminal part without complete TAD-B which acts as a transcriptional repressor, domain: Rel Similarity Domain (RSD) allows DNA-binding and cooperative interactions with AP1 factors, domain: The N-terminal transactivation domain (TAD-A) binds to and is activated by Cbp/p300. The dephosphorylated form contains two unmasked nuclear localization signals (NLS), which allow translocation of the protein to the nucleus, function: Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2 or IL-4 gene transcription. Also controls gene expression in embryonic cardiac cells. Could regulate not only the activation and proliferation but also the differentiation and programmed death of T-lymphocytes as well as lymphoid and non-lymphoid cells, induction: Only isoforms A are inducibly expressed in T lymphocytes upon activation of the T-cell receptor (TCR) complex. Induced after co-addition of phorbol 12-myristate 13-acetate (PMA) and ionomycin. Also induced after co-addition of 12-O-tetradecanoylphorbol-13-acetate (TPA) and ionomycin. Weakly induced with PMA, ionomycin and cyclosporin A, PTM: Phosphorylated by NFATC-kinase; dephosphorylated by calcineurin, similarity: Contains 1 RHD (Rel-like) domain, subcellular location: Cytoplasmic for the phosphorylated form and nuclear after activation that is controlled by calcineurin-mediated dephosphorylation. Rapid nuclear exit of NFATC is thought to be one mechanism by which cells distinguish between sustained and transient calcium signals. The subcellular localization of NFATC plays a key role in the regulation of gene transcription, 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, tissue specificity: Expressed in thymus, peripheral leukocytes as T-cells and spleen. Isoforms A are preferentially expressed in effector T-cells (thymus and peripheral leukocytes) whereas isoforms B and isoforms C are preferentially expressed in naive T-cells (spleen). Isoforms B are expressed in naive T-cells after first antigen exposure and isoforms A are expressed in effector T-cells after second antigen exposure.

Research Area

Immunology

Image Data



Western Blot analysis of 293T using primary antibody at 1:1000 dilution 4°C, overnight. Secondary antibody was diluted at 1:10000 25°C, 1.5 hours

