



NFAT1 Rabbit mAb

Catalog No	YP-rAb-17217
Isotype	IgG
Reactivity	Human
Applications	WB,IHC,IF,ELISA
Gene Name	NFATC2 NFAT1 NFATP
Protein Name	Nuclear factor of activated T-cells, cytoplasmic 2 (NF-ATc2) (NFATc2) (NFAT pre-existing subunit) (NF-ATp) (T-cell transcription factor NFAT1)
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:100-1:500; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	NFAT1;Nuclear factor of activated T-cells, cytoplasmic 2 (NF-ATc2) (NFATc2) (NFAT pre-existing subunit) (NF-ATp) (T-cell transcription factor NFAT1);Nuclear factor of activated T-cells, cytoplasmic 2 ; NF-ATc2 ; NFATc2 ; NFAT pre-existing subunit ; NF-ATp ; T-cell transcription factor NFAT1 ;NFATC2 NFAT1 NFATP
Observed Band	140kD
Calculated Molecular Weight	100kD
Cell Pathway	Cytoplasm. Nucleus. 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.
Tissue Specificity	Expressed in thymus, spleen, heart, testis, brain, placenta, muscle and pancreas. Isoform 1 is highly expressed in the small intestine, heart, testis, prostate, thymus, placenta and thyroid. Isoform 3 is highly expressed in stomach, uterus, placenta, trachea and thyroid.
Function	Alternative products:Additional isoforms seem to exist,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, IL-3, IL-4, TNF-alpha or GM-CSF.,induction: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.,PTM:In resting cells, phosphorylated by



NFATC-kinase on at least 18 sites in the 99-363 region. Upon cell stimulation, all these sites except Ser-243 are dephosphorylated by calcineurin .
Dephosphorylation induces a conformational change that simultaneously exposes an NLS and masks an NES, which results in nuclear localization. Simultaneously, Ser-53 or Ser-56 is phosphorylated; which is required for full transcriptional activity.,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. The phosphorylated form specifically interacts with XPO1; which mediates nuclear export. NFATC proteins bind to DNA as monomers Interacts with NFATC2IP.,tissue specificity:Expressed in thymus, spleen, heart, testis, brain, placenta, muscle and pancreas.,

Background

This gene is a member of the nuclear factor of activated T cells (NFAT) family . The product of this gene is a DNA-binding protein with a REL-homology region (RHR) and an NFAT-homology region (NHR). This protein is present in the cytosol and only translocates to the nucleus upon T cell receptor (TCR) stimulation, where it becomes a member of the nuclear factors of activated T cells transcription complex. This complex plays a central role in inducing gene transcription during the immune response. Alternate transcriptional splice variants encoding different isoforms have been characterized. [provided by RefSeq, Apr 2012],

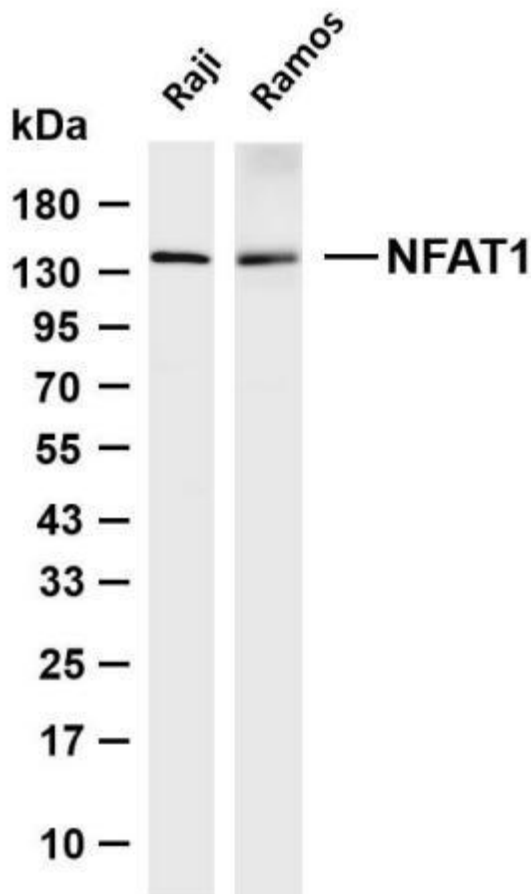
matters needing attention

Avoid repeated freezing and thawing!

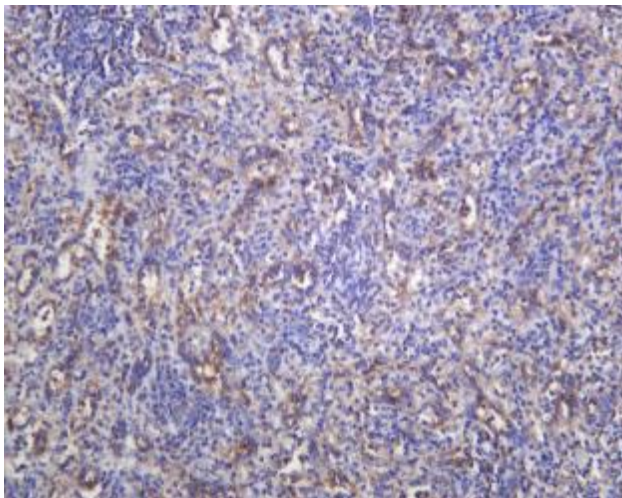
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.





Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-NFAT1 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Raji Lane 2: Ramos Predicted band size: 100kDa Observed band size: 140kDa



Human spleen was stained with anti-NFAT1 Rabbit antibody

