



NFATc1 Monoclonal Antibody

Catalog No	YP-mAb-02243
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	NFATC1
Immunogen	The antiserum was produced against synthesized peptide derived from the C-terminal region of human NFATC1. AA range:881-930
Specificity	NFATc1 Monoclonal Antibody detects endogenous levels of NFATc1 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000;
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	NF ATC;NF ATc1;NFAT2;NFATc;NFATC1;Nuclear factor of activated T-cells cytoplasmic 1;Nuclear factor of activated T-cells;cytoplasmic 1;NF-ATc1;NFAT transcription complex cytosolic component;NF-ATc; cytoplasmic 1
Calculated Molecular Weight	105kD
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 (PubMed:16511445). Nuclear translocation of NFATC1 is enhanced in the presence of TNFSF11. Nuclear translocation is decreased in the presence of FBN1 which can bind and sequester TNFSF11 (By similarity). .
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. Isoforms IA are widely expressed but not detected in liver nor pancreas, neural expression is strongest in corpus callosum. Isoforms IB are expressed mostly in muscle, cerebellum, placenta and thymus, neural



expression in fetal and adult brain, strongest in corpus callosum.

Function

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 o

Background

The product of this gene is a component of the nuclear factor of activated T cells 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 (TCR) stimulation, and an inducible nuclear component. Proteins belonging to this family of transcription factors play a central role in inducible gene transcription during immune response. The product of this gene is an inducible nuclear component. It functions as a major molecular target for the immunosuppressive drugs such as cyclosporin A. Multiple alternatively spliced transcript variants encoding distinct isoforms have been identified for this gene. Different isoforms of this protein may regulate inducible expression of different cytokine genes. [provided by RefSeq, Jul 2013],

matters needing attention

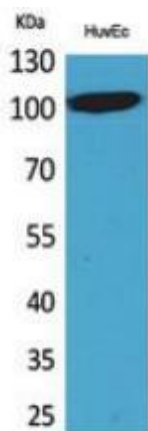
Avoid repeated freezing and thawing!

Usage suggestions

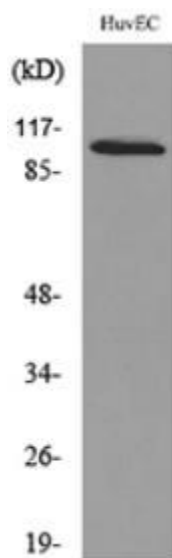
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Products Images



Western Blot analysis of HuvEc cells using NFATc1 Monoclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Western blot analysis of lysate from HUVEC cells, using NFATC1 Antibody.