

Anti-NFAT2 Antibody
Catalog # ABO10978**Specification**

Anti-NFAT2 Antibody - Product Information

Application	WB
Primary Accession	O95644
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Nuclear factor of activated T-cells, cytoplasmic 1(NFATC1) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-NFAT2 Antibody - Additional Information

Gene ID 4772

Other Names

Nuclear factor of activated T-cells, cytoplasmic 1, NF-ATc1, NFATc1, NFAT transcription complex cytosolic component, NF-ATc, NFATc, NFATC1, NFAT2, NFATC

Calculated MW

101243 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

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, 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. .

Protein Name

Nuclear factor of activated T-cells, cytoplasmic 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human NFAT2(700-716aa AIFLTVSREHERVGCFF).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-NFAT2 Antibody - Protein Information

Name NFATC1

Synonyms NFAT2, NFATC

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 (PubMed:10358178). Required for osteoclastogenesis and regulates many genes important for osteoclast differentiation and function (By similarity).

Cellular Location

Cytoplasm. Nucleus. Note=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. Translocation to the nucleus is increased in the presence of calcium in pre-osteoblasts (By similarity). 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). {ECO:0000250|UniProtKB:O88942, ECO:0000269|PubMed:16511445}

Tissue Location

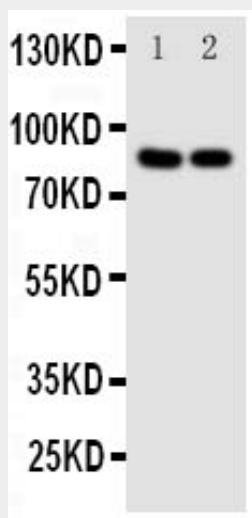
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Anti-NFAT2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-NFAT2 Antibody - Images



Anti-NFAT2 antibody, ABO10978, Western blotting
All lanes: Anti NFAT2 (ABO10978) at 0.5ug/ml
Lane 1: PANC Whole Cell Lysate at 40ug
Lane 2: U2OS Whole Cell Lysate at 40ug
Predicted bind size: 101KD
Observed bind size: 85KD

Anti-NFAT2 Antibody - Background

NFATC1(Nuclear factor of activated T-cells, cytoplasmic 1), also known as NFATC or NFAT2, is a protein that in humans is encoded by the NFATC1 gene. And it is also a component of the nuclear factor of activated T cells DNA-binding transcription complex. The NFATC1 gene is mapped on 18q23. Proteins belonging to this family of transcription factors play a central role in inducible gene transcription during immune response. NFATC1 was not detected in brain, liver, or kidney. NFATC1 is an inducible nuclear component which functions as a major molecular target for the immunosuppressive drugs such as cyclosporin A. The solution structure of the binary complex formed between the core DNA-binding domain of human NFATC1 and the 12-bp oligonucleotide duplex containing the ARRE2 DNA site from the IL2 promoter. Nfatc1 was expressed exclusively in mouse hair follicle stem cells, and using gain- and loss-of-function approaches, and Nfatc1 inhibited stem cell activation.