

NFATC1 monoclonal antibody, clone AT1C3

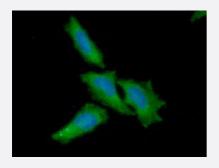
Catalog # MAB3209 Size 100 uL

Applications



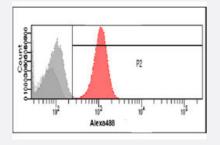
Western Blot

Western blot analysis of Lane 1: 293T cell lysate, Lane 2: NFATC1 Transfected 293T cell lysate.



Immunofluorescence

Immunofluorescence analysis of HeLa cells. The cell was stained with NFATC1 monoclonal antibody, clone AT1C3 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



Flow Cytometry

Flow cytometric analysis of Jurkat cells. The cell was stained with NFATC1 monoclonal antibody, clone AT1C3 at 2-5 ug for 1x16cells. (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).

Specification

Product Description

Mouse monoclonal antibody raised against partial recombinant NFATC1.



Product Information

Immunogen	Recombinant protein corresponding to amino acids 428-716 of human NFATC1.
Host	Mouse
Reactivity	Human
Form	Liquid
Purification	Protein G purification
Isotype	lgG2a, kappa
Recommend Usage	ELISA Flow Cytometry Immunocytochemistry Immunofluorescence Western Blot The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.4 (10% glycerol, 0.02% sodium azide).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

Western Blot

Western blot analysis of Lane 1: 293T cell lysate, Lane 2: NFATC1 Transfected 293T cell lysate.

- Immunocytochemistry
- Immunofluorescence

Immunofluorescence analysis of HeLa cells. The cell was stained with NFATC1 monoclonal antibody, clone AT1C3 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

- Enzyme-linked Immunoabsorbent Assay
- Flow Cytometry

Flow cytometric analysis of Jurkat cells. The cell was stained with NFATC1 monoclonal antibody, clone AT1C3 at 2-5 ug for 1x1⁶cells. (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).



Gene Info — NFATC1	
Entrez GenelD	<u>4772</u>
Protein Accession#	NP_765978
Gene Name	NFATC1
Gene Alias	MGC138448, NF-ATC, NFAT2, NFATc
Gene Description	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1
Omim ID	600489
Gene Ontology	<u>Hyperlink</u>
Gene Summary	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. Five 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
Other Designations	NFAT transcription complex cytosolic component nuclear factor of activated T-cells, cytosolic component 1

Publication Reference

• Epigenetic changes and suppression of the nuclear factor of activated T cell 1 (NFATC1) promoter in human lymphomas with defects in immunoreceptor signaling.

Akimzhanov A, Krenacs L, Schlegel T, Klein-Hessling S, Bagdi E, Stelkovics E, Kondo E, Chuvpilo S, Wilke P, Avots A, Gattenlohner S, Muller-Hermelink HK, Palmetshofer A, Serfling E.

The American Journal of Pathology 2008 Jan; 172(1):215.

Application: IHC-P, WB, Human, Human anaplastic large cell lymphomas, classical Hodgkin's lymphomas, peripheral blood lymphocytes, Jurkat, KM-H2, L428, L540 HL cells

Autoamplification of NFATc1 expression determines its essential role in bone homeostasis.

Asagiri M, Sato K, Usami T, Ochi S, Nishina H, Yoshida H, Morita I, Wagner EF, Mak TW, Serfling E, Takayanagi H. The Journal of Experimental Medicine 2005 Nov; 202(9):1261.

Application: ChIP, WB-Ce, Human, Mouse, BMMs, Daudi lymphoma cells



Transcription factors of the NFAT family: regulation and function.

Rao A, Luo C, Hogan PG.

Annual Review of Immunology 1997 Apr; 15:707.

Pathway

- Axon guidance
- B cell receptor signaling pathway
- Natural killer cell mediated cytotoxicity
- T cell receptor signaling pathway
- VEGF signaling pathway
- Wnt signaling pathway

Disease

- Cardiovascular Diseases
- Diabetes Mellitus
- Edema
- Genetic Predisposition to Disease
- Heart Defects
- Heart Septal Defects
- Kidney Failure
- Pulmonary Valve Stenosis
- Tricuspid Atresia