Technical Data Sheet

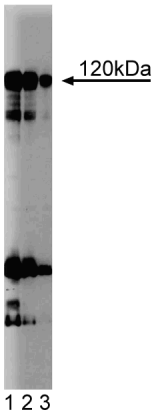
Purified Mouse Anti- NFAT-1

Product Information

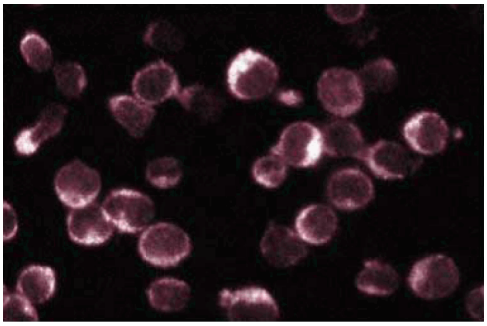
Material Number:	**610703**
Alternate Name:	NF-ATc2; NFATP; KIAA0611
Size:	150 µg
Concentration:	250 µg/ml
Clone:	1/NFAT-1
Immunogen:	Human NFAT-1 aa. 29-181
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog
Target MW:	97-135 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

T cells are activated and induced to proliferate following binding of their respective antigen. The process of includes expression of genes that encode factors (i.e., cytokines) which regulate various cell types. Modulation of gene expression is conducted by an array of specific interactions between transcription factors and DNA. NFAT-1 (Nuclear Factor of Activated T cells) is a transcription factor that regulates expression of the interleukin-2 gene. Thus, NFAT-1 DNA binding activity is undetectable in resting cells, but increases during T-cell activation. NFAT-1, a protein of 921 amino acids, is part of an oligomeric transcription factor that also contains Fra-1 and JunB. NFAT-1 was initially described as a phosphoprotein and is dephosphorylated in activated T cells transformed with the leukemia virus HTLV-l.



Western blot analysis of NFAT-1 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). *Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10,000 dilution of the mouse anti- NFAT-1 antibody. NFAT-1 may be identified migrating between 97-135 kDa.*



Immunofluorescence staining of Jurkat cells (Human T-cell leukemia; ATCC TIB-152).

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Suggested Companion Products

Catalog Number	Name	Size	Clone
611960	FITC Mouse Anti- NFAT-1	50 µg	1/NFAT-1
611451	Jurkat Cell Lysate	500 µg	(none)
611635	MDCK Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Boise LH, Petryniak B, Mao X, et al. The NFAT-1 DNA binding complex in activated T cells contains Fra-1 and JunB. *Mol Cell Biol.* 1993; 13(3):1911-1919. (Biology)

Good L, Maggirwar SB, Harhaj EW, Sun SC. Constitutive dephosphorylation and activation of a member of the nuclear factor of activated T cells, NF-AT1, in Tax-expressing and type I human T-cell leukemia virus-infected human T cells. *J Biol Chem.* 1997; 272(3):1425-1428. (Biology)

Grader-Beck T, van Puijenbroek AA, Nadler LM, Boussiotis VA. cAMP inhibits both Ras and Rap1 activation in primary human T lymphocytes, but only Ras inhibition correlates with blockade of cell cycle progression. *Blood.* 2003; 101(3):998-1006. (Biology)

Kadereit S, Mohammad SF, Miller RE, et al. Reduced NFAT1 protein expression in human umbilical cord blood T lymphocytes. *Blood.* 1999; 94(9):3101-3107. (Biology: Western blot)

McCaffrey PG, Luo C, Kerppola TK, et al. Isolation of the cyclosporin-sensitive T cell transcription factor NFATp. *Science.* 1993; 262(5134):750-754. (Biology)