

Product datasheet for TA328056

OriGene Technologies, Inc.

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NFAT2 (NFATC1) Mouse Monoclonal Antibody [Clone ID: 7A6]

Product data:

Product Type: Primary Antibodies

Clone Name: 7A6
Applications: WB

Recommended Dilution: WB, FC, IF

Reactivity: Human, Mouse, Rat

Host: Mouse Isotype: IgG1

Clonality: Monoclonal

Immunogen: Recombinant protein of human NFATc1 amino acids 197-304.

Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, 0.09% sodium azide.

Concentration: lot specific

Purification: The antibody was purified by affinity chromatography.

Conjugation: Unconjugated

Storage: Store at -20°C as received.

Stability: Stable for 12 months from date of receipt.

Predicted Protein Size: 101 kD

Gene Name: nuclear factor of activated T-cells 1

Database Link: NP 765976

Entrez Gene 18018 MouseEntrez Gene 100361818 RatEntrez Gene 4772 Human

<u>095644</u>





Background:

The product of this gene is a component of the nuclear factor of activated T cells DNAbinding transcription complex. The protein complex consists of NFAT1, NFAT2 (NFATc1 or NFATc), NFAT3, and NFAT4. All members of this family are transcription factors with a Rel homology domain and regulate gene transcription in concert with AP-1 (Jun/Fos) to orchestrate an effective immune response. NFAT proteins are predominantly expressed in cells of the immune system but are also expressed in skeletal muscle, keratinocytes and adipocytes, regulating cell differentiation programs in these cells. In resting cells, NFAT proteins are heavily phosphorylated and localized in the cytoplasm. Increased intracellular calcium concentrations activate the calcium/calmodulin-dependent serine phosphatase calcineurin, which dephosphorylates NFAT proteins, resulting in their subsequent translocation to the nucleus. 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.

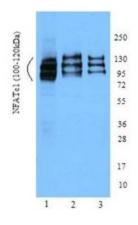
Synonyms: NF-ATC; NF-ATc1.2; NFAT2; NFATc

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Axon guidance, B cell receptor signaling pathway, Natural killer cell mediated cytotoxicity, T

cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway

Product images:



Jurkat (Lane 1), human Th1 (Lane 2), and mouse Th1 (Lane 3) cell extracts were resolved by electrophoresis, transferred to nitrocellulose, and probed with monoclonal anti-NFATc1 antibody (clone 7A6). Proteins were visualized using a goat anti-mouse IgG secondary conjugated to HRP and chemiluminescence detection.