

Product datasheet for RC222417

NFAT2 (NFATC1) (NM_172388) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT2 (NFATC1) (NM_172388) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NFAT2
Synonyms:	NF-ATC; NF-ATc1.2; NFAT2; NFATc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222417 representing NM_172388 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCAGCTTTTCATTGGGACGGCGGACGACCCGCTGCTGCGCCGCACGCCTTCTACCAGGTGCACC
GCATCACAGGGAAGACCGTGTCCACCACCAGCCACGAGGCCATCCTCTCCAACACCAAAGTCTGGAGAT
CCCCTCTGCCGGAACAGCATGCGAGCCGTCATTGACTGTGCCGGAATCCTGAAACTCAGAACTCC
GACATTGAACTTCGAAAGGAGAGACGGACATCGGGAGGAAGAACACACGGGTACGGCTGGTGTCCGCG
TTCACGTCCCGAACCCAGCGGCCGACGCTGTCCCTGCAGGTGGCTCCAACCCATCGAATGCTCCCA
GCGCTCAGCTCAGGAGCTGCCTCTGGTGGAGAAGCAGAGCACGGACAGCTATCCGGTCGTGGCGGGAAG
AAGATGGTCTGTCCGGCCACAACCTTCTCGAGGACTCCAAGGTCATTTTCGTGGAGAAAGCCCCAGATG
GCCACCATGTCTGGGAGATGGAAGCGAAAACCTGACCGGGACCTGTGCAAGCCGAATTCTCTGGTGGTTGA
GATCCCGCCGTTTCGGAATCAGAGGATAAACCAGCCCCGTTACGTCAGTTTCTACGTCTGCAACGGGAAG
AGAAAGCGAAGCCAGTACCAGCGTTTACCTACCTTCCCGCCAACGTTCCAATTAAAAACAGAACCCA
CTGATGATTATGAGCCTGCTCCAACCTGTGGACCGGTGAGCCAGGGGTTAAGTCTCTCCAAGACCATA
CTACAGCCAGCAGCTCGCGATGCCACCCGACCCAGCTCCTGCCTCGTGGCCGGCTTCCCGCCGGTCCG
CAGAGAAGCACCCCTGATGCCAGCGGCCCTGGCGTGAGCCCAAGCTCCACGACCTTTCTCCCGCTGCCT
ACACCAAGGGCGTTGCCAGCCCGGCCACTGTACCTCGGACTCCCGCAGCCGGCCGGAGAGGCCCCCGC
CGTCCAGGACGTGCCAGGCCAGTGCCACGCACCCCGGCTCGCCGGGAGCCACCCCGGCCCTGCTG
CCACAGCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC222417 representing NM_172388
Red=Cloning site Green=Tags(s)

MLQLFIGTADDRLLRPHAFYQVHRITGKTVSTTSHEAILSNTKVLEIPLLPENSMRAVIDCAGILKLRNS
 DIELRKGETDIGRKNTRVRLVFRVHVPQPSGRTLSQLQVSNPIECSQSAQELPLVEKQSTDSYPVVGK
 KMWLSGHNFLODSKVIIFVEKAPDGHVWEMEAKTDRDLCKPNSLVVEIPFRNQIRITSPVHVSFYVCNGK
 RKRSQYQRFTYLPANVPIIKTEPTDDYEPAPTCGPVSQLSPLPRPYYSQQLAMPDPDSSCLVAGFPFGP
 QRSTLMPAAPGVSPKLHDLSPAAYTKGVASPGHCHLGLPQPAGEAPAVQDVPRPVATHPGSPGPPFPALL
 PQQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6047_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_172388

ORF Size: 1059 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_172388.3](#)

RefSeq Size: 3671 bp

RefSeq ORF: 1062 bp

Locus ID: 4772

UniProt ID: [O95644](#)

Cytogenetics: 18q23

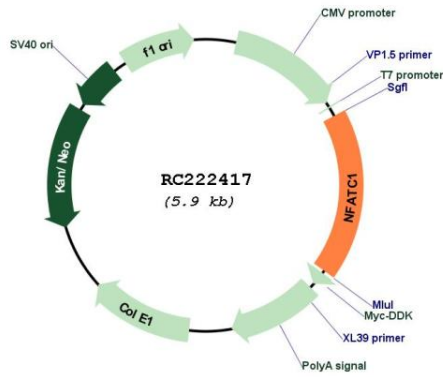
Protein Families: Druggable Genome, Transcription Factors

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

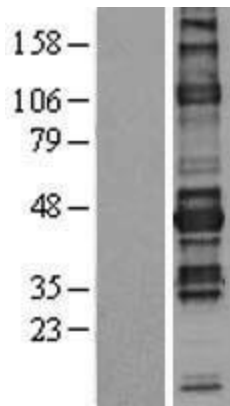
MW: 38.4 kDa

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. 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]

Product images:



Circular map for RC222417



Western blot validation of overexpression lysate (Cat# [LY403544]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222417 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).