

## Product datasheet for **RC226803**

### NFAT1 (NFATC2) (NM\_001136021) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT1 (NFATC2) (NM_001136021) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NFAT1
Synonyms:	NFAT1; NFATP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC226803 representing NM\_001136021  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCAGAGAGAGGCTGCGTTTCAGACTGGGGCACTGCCATCCCCTCCGCATCATGGGGTCTGTGGACCAAG  
 AAGAGCCGAATGCACATAAGGTCGCCAGCCACCTCCGGACCCGCATACCCCGATGATGTCCTGGACTA  
 TGGCCTCAAGCCATACAGCCCCCTTGTAGTCTCTTGGCGAGCCCCCGGCCGATTTCGGAGAGCCGGAT  
 AGGGTAGGGCCGAGAAGTTTCTGAGCGCGCCAAAGCCAGCAGGGGCTCGGGCTGAGCCCTCGGATCG  
 AGATCACTCCGTCCCACGAAGTATCCAGGCAGTGGGGCCCTCCGCATGAGAGACGCGGGCTCCTGGT  
 GGAGCAGCCGCCCTGGCCGGGTGGCCGCCAGCCGAGGTTACCTGCCCGTCCCGGCTTCGAGGGC  
 TACCGCGAGCCGCTTTGCTTGGCCCGCTAGCAGCGGCTCCTCTGCCAGCTTCATTTCTGACACCTTCT  
 CCCCCTACACCTGCCCTGCGTCTGCCAATAACGGCGGGCCGACGACCTGTGTCCGAGTTTCAAAA  
 CATCCCTGCTCATTATCCCCAGAACCTCGCCAATAATGTCACCTCGAACCCAGCTCGCCGAGGACAGC  
 TGCTGGGCCGCCACTCGCCCGTCCCGCTCCCGCTCCCTCATCGCTGGTGCCAAAGCGGAGGC  
 ATTCGTGCGCCGAGGCCTTGGTTGCCCTGCCGCCGGAGCCTCACCCAGCGCTCCCGAGCCCTCGCC  
 GCAGCCCTCATCTCACGTGGCACCCAGGACCAGGCTCCCGGCTGGGTACCCCTGTGGCTGGCTCT  
 GCCGTGATCATGGATGCCCTGAACAGCCTCGCCACGGACTCGCCTGTGGGATCCCCCAAGATGTGGA  
 AGACCAGCCCTGACCCCTCGCCGGTGTCTGCCGCCCATCAAGGCCGGCTGCCCGCCACATCTACCC  
 GGCCGTGGAGTTCTGGGGCCCTGCGAGCAGGGCAGAGGAGAACTCGGCTCCAGAATCCATCCTGCTG  
 GTTCCGCCACTTGGCCCAAGCCGCTGGTGCCTGCCATTCCCATCTGCAGCATCCAGTACTGCATCCC  
 TCCCTCCACTTGAGTGGCCGCTGTCAGTCAGTCAGGCTTTACGAGCTGCGGATCGAGGTGCAGCCAA  
 GCCACATCACCGGCCCACTATGAGACAGAAGGCAGCCGAGGGGCTGTCAAAGCTCAAAGTGGAGGCCAC  
 CCTGTGGTTTACGCTCCATGGCTACATGGAACAAGCCTCTGGGACTTCAGATCTTCATTGGGACAGCTG  
 ATGAGCGGATCCTTAAGCCGCACGCCTTACCAGGTGCACCGAATCACGGGAAAACTGTCAACCCAC  
 CAGCTATGAGAAGATAGTGGGAACACCAAGTCTGGAGATACCTTGGAGCCAAAAACAACATGAGG  
 GCAACCATCGACTGTGCGGGATCTTGAAGCTTAGAAACGCCGACATTGAGCTGCGGAAAGGCGAGACGG  
 ACATTGGAAGAAAGAACACGCGGTGAGACTGGTTTTCCGAGTTCACATCCAGAGTCCAGTGGCAGAAT  
 CGTCTCTTACAGACTGCATCTAACCCATCGAGTGTCCAGCGATCTGCTCACGAGCTGCCATGGT  
 GAAAGACAAGACACAGACAGCTGCCTGGTCTATGGCGCCAGCAATGATCCTCACGGGGCAGAACTTTA  
 CATCCGAGTCAAAGTTGTGTTACTGAGAAGACCACAGATGGACAGCAATTTGGGAGATGGAAGCCAC  
 GGTGGATAAAGACAAGAGCCAGCCCAACATGCTTTTTGTTGAGATCCCTGAATATCGGAACAAGCATATC  
 CGCACACCTGTAAAAGTGAATTCTACGTCAATGGAAGAGAAAAACGAAGTCAGCCTCAGCACTTTA  
 CCTACCACCCAGTCCCAGCCATCAAGACGGAGCCACGGATGAATATGACCCCACTCTGATCTGCAGCCC  
 CACCCATGGAGGCCTGGGGAGCCAGCCTTACTACCCCAAGCAGCCGATGGTGGCCGAGTCCCCCTCCTGC  
 CTCGTGGCCACCATGGCTCCCTGCCAGCAGTTCGCACGGGGCTCTCATCCCTGACGCCGCTACCAGC  
 AACAGAACCAGCGGCCGTACTCTACCAGCGGAGCAAGAGCCTGAGCCCCAGCCTGCTGGGCTATCAGCA  
 GCCGGCCCTCATGGCCGCCCGCTGTCCCTTGGCGACGCTCACCGCTCTGTGCTGGTGCAGCCGGCTCC  
 CAGGGCCAGAGCTCAGCCCTGTCCACCCCTCTCCGACCAACCAGCAGGCTCGCCTGTGATCCACTACT  
 CACCCACCAACCAGCAGCTGCGCTGCGGAAGCCACCAGGAGTTCAGCACATCATGTAAGTGCAGAAATTT  
 CGCACCAGGCACCACCAGACCTGGCCGCCCGGTCAGTCAAGGTGAGAGGCTGAGCCCGGTTCTTAC  
 CCCACAGTCAATCAGCAGCAGAAATGCCACGAGCCAAAGAGCCGCAAAAACGGACCCCGGTCAGTGACC  
 AAAAGGAAGTATTACCTGCGGGGTGACCATTAACAGGAGCAGAACTTGGACCAGACCTACTTGGATGA  
 TGAGCTGATAGACACACACCTTAGCTGGATACAAAACATATTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC226803 representing NM\_001136021  
 Red=Cloning site Green=Tags(s)

MQREAAFRLGHCHPLRIMGSDQEEPNAHKVASPPSGPAYPDDVLDYGLKPYSPLASLGEPPGRFGEPD  
 RVGPQKFLSAAKPAGASGLSPRIEITPSHEL IQAVGLRMRDAGLLVEQPPLAGVAASPRFTLPVPGFEG  
 YREPLCLSPASSGSSASFISDTFSPYTPSPVSPNNGPDDLCPQFQNIPIAHYSPRTSPI MSPRTSLAEDS  
 CLGRHSPVPRPASRSSSPGAKRRHSCEALVALPPGASPQRSRSPSPQSSHVAPQDHGSPAGYPPVAGS  
 AVIMDALNSLATDSPCGIPPKMWKTPDPSPVSAAPSKAGLPRHIYPAVEFLGPCEQGERNSAPESILL  
 VPPTWPKPLVPAIPICSIPTVATSLPPELWPLSSQSGSYELRIEVQPKPHHRAHYETEGSRGAVKAPTGGH  
 PVVQLHGMYENKPLGLQIFIGTADERILKPHAFYQVHRITGKTVTTTTSYEKIVGNTKVL EIPLEPKNNMR  
 ATIDCAGILKLRNADIELRKGETDIGRKNTRVRLVFRVHIPESSGRIVSLQTASNPIECSQRSARELPMV  
 ERQDTSCLVYGGQQMILTGQNF TSESKVVFTEKTTDGGQIWEMEATVDKDKSQPNMLFVEIPEYRNKHI  
 RTPVKVNFYVINGKRKRSQPQHF TYHPVPAIKTEPTDEYDPTLICSPTHGGLGSQPYYPQHMPVAESPSC  
 LVATMAPCQQFRTGLSSPDARYQQNPAAVLYQRSKSLSPSLLGYQPALMAAPLSLADAHRSVL VHAGS  
 QQQSSALLHPSPTNQQASPVIIHYSPTNQLRCSHQEFQHIMYCENFAPGTTTRPGPPPVSQGRQLSPGSY  
 PTVIQQNATSQRAAKNGPPVSDQKEVLPAGVTIKQEQLNDQTYLDDELIDTHLSWIQNIL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8031\\_d05.zip](https://cdn.origene.com/chromatograms/mk8031_d05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:

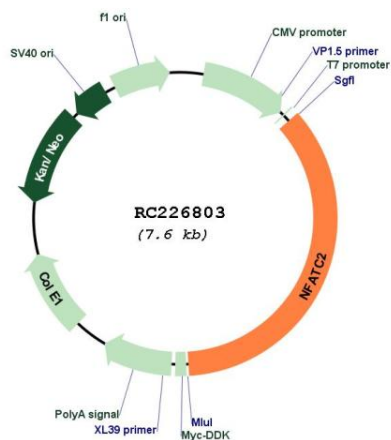


\* The last codon before the Stop codon of the ORF

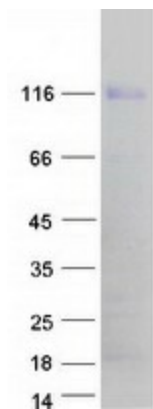
**ACCN:** NM\_001136021

<b>ORF Size:</b>	2703 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001136021.3</a>
<b>RefSeq ORF:</b>	2706 bp
<b>Locus ID:</b>	4773
<b>UniProt ID:</b>	<a href="#">Q13469</a>
<b>Cytogenetics:</b>	20q13.2
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Axon guidance, B cell receptor signaling pathway, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway
<b>MW:</b>	97.5 kDa
<b>Gene Summary:</b>	This gene is a member of the nuclear factor of activated T cells (NFAT) family. The product of this gene is a DNA-binding protein with a REL-homology region (RHR) and an NFAT-homology region (NHR). This protein is present in the cytosol and only translocates to the nucleus upon T cell receptor (TCR) stimulation, where it becomes a member of the nuclear factors of activated T cells transcription complex. This complex plays a central role in inducing gene transcription during the immune response. Alternate transcriptional splice variants encoding different isoforms have been characterized. [provided by RefSeq, Apr 2012]

Product images:



Circular map for RC226803



Coomassie blue staining of purified NFATC2 protein (Cat# [TP326803]). The protein was produced from HEK293T cells transfected with NFATC2 cDNA clone (Cat# RC226803) using MegaTran 2.0 (Cat# [TT210002]).