

## Product datasheet for **RC234745**

### NFAT1 (NFATC2) (NM\_001258294) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT1 (NFATC2) (NM_001258294) 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:**

>RC234745 representing NM\_001258294  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCACCTCGAACCAGCCTCGCCGAGGACAGCTGCCTGGGCCGCCACTCGCCCGTGCCCGTCCGGCCT  
 CCCGCTCCTCATCGCCTGGTGCCAAGCGGAGGCATTTCGTGCGCCGAGGCCTTGGTTGCCCTGCCGCCGG  
 AGCCTCACCCAGCGCTCCCGGAGCCCTCGCCGAGCCCTCATCTCACGTGGCACCCAGGACCACGGC  
 TCCCCGGCTGGTACCCCTGTGGCTGGCTGCTGCGGTGATCATGGATGCCCTGAACAGCCTCGCCACGG  
 ACTCGCCTTGTGGGATCCCCCAAGATGTGGAAGACCAGCCCTGACCCCTCGCCGGTGTCTGCCGCC  
 ATCCAAGCGCGCCTGCCTCGCCACATCTACCCGGCCGTGGAGTTCCTGGGGCCCTGCGAGCAGGGCGAG  
 AGGAGAACTCGGCTCCAGAATCCATCCTGCTGGTTCGCCCACTGGCCCAAGCCGCTGGTGCCTGCCA  
 TTCCCATCTGCAGCATCCAGTACTGCATCCCTCCCTCACTTGAGTGGCCGCTGTCCAGTCAGTCAGG  
 CTCTTACGAGCTCGGGATCGAGGTGCAGCCCAAGCCACATCACCCGGCCCACTATGAGACAGAAGGCAGC  
 CGAGGGGCTGTCAAAGCTCCAAGTGGAGGCCACCTGTGGTTCAGCTCCATGGCTACATGGAAAACAAGC  
 CTCTGGGACTTCAGATCTTCATTGGGACAGCTGATGAGCGGATCCTTAAGCCGCACGCCTTCTACCAGGT  
 GCACCGAATCACGGGAAAACTGTCAACCACCAGCTATGAGAAGATAGTGGGCAACACAAAGTCCTG  
 GAGATACCCTTGGAGCCAAAAACAATGAGGGCAACCATCGACTGTGCGGGGATCTTGAAGCTTAGAA  
 ACGCCGACATTGAGCTGCGGAAAGGCGAGACGGACATTGGAAGAAAGAACACGCGGGTGAGACTGGTTTT  
 CCGAGTTCACATCCCAGAGTCCAGTGGCAGAATCGTCTCTTTACAGACTGCATCTAACCCATCGAGTGC  
 TCCCAGGATCTGCTCACGAGCTGCCATGGTTGAAAGACAAGACACAGACAGCTGCCTGGTCTATGGCG  
 GCCAGCAAATGATCCTCACGGGGCAGAACTTTACATCCGAGTCCAAAGTTGTGTTACTGAGAAGACCAC  
 AGATGGACAGCAAATTTGGGAGATGGAAGCCACGGTGGATAAGGACAAGAGCCAGCCCAACATGCTTTTT  
 GTTGAGATCCCTGAATATCGGAACAAGCATATCCGCACACCTGTAAAAGTGAAGTCTACGTCATCAATG  
 GGAAGAGAAAACGAAGTCAGCCTCAGCACTTTACCTACCACCCAGTCCCAGCCATCAAGACGGAGCCAC  
 GGATGAATATGACCCCACTCTGATCTGCAGCCCCACCATGGAGGCTGGGGAGCCAGCCTTACTACCCC  
 CAGCACCCGATGGTGGCCGAGTCCCCCTCCTGCCTCGTGGCCACCATGGCTCCCTGCCAGCAGTTCGCA  
 CGGGGCTCTCATCCCCTGACGCCGCTACCAGCAACAGAACCCAGCGGCCGTACTCTACCAGCGGAGCAA  
 GAGCCTGAGCCCCAGCCTGCTGGGCTATCAGCAGCCGGCCCTCATGGCCGCCCGCTGTCCCTTGGCGAC  
 GCTCACCGCTCTGTGCTGGTGCACGCCGGCTCCCAGGGCCAGAGCTCAGCCCTGCTCACCCCTCTCCGA  
 CCAACCAGCAGGCTCGCCTGTGATCCACTACTACCCACCAACCAGCAGCTGCGCTGCGGAAGCCACCA  
 GGAGTTCAGCACATCATGTACTGCGAGAATTCGCACCAGGCACCACCAGACCTGGCCCCCCCCGGTC  
 AGTCAAGGTCAGAGGCTGAGCCCGGTTCTACCCACAGTCAATTCAGCAGCAGAATGCCACGAGCCAAA  
 GAGCCGCCAAAAACGGACCCCGGTGAGTACCAAAAGGAAGTATTACCTGCGGGGGTGACCATTAACA  
 GGAGCAGAACTTGGACCAGACCTACTTGGATGATGAGCTGATAGACACACACCTTAGCTGGATACAAAAC  
 ATATTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC234745 representing NM\_001258294  
 Red=Cloning site Green=Tags(s)

MSPRTSLAEDSCLGRHSPVPRPASRSSSPGAKRRHS CAEALVALPPGASPQRSRSPSPQSSHVAPQDHG  
 SPAGYPPVAGSAVIMDALNSLATDSPCGIPPKMWKTS PDPSPVSAAPSKAGLPRHIYPAVEFLGPCEQGE  
 RRNSAPESILLVPPTWPKPLVPAIPICSIPTASL PPLEWPLSSQSGSYELRIEVQPKPHHRAHYETEGS  
 RGAVKAPTGGHPVVQLHGMYENKPLGLQIFIGT ADERILKPHAFYQVHRITGKTVTTTSYEKIVGNTKVL  
 EIPLEPKNNMRATIDCAGILKLRNADIELRKGETDI GRKNTRVRLVFRVHIPESSGRIVSLQTASNP IEC  
 SQRSAHELPMVERQDTSCLVYGGQQMILTGQNF TSESKVVFTEKTTDGQQIWEMEATVDKDKSQPNMLF  
 VEIPEYRNKHIRTPVKVNFYVINGKRKRSQPQH FTYHPVPAIKTEPTDEYDPTLICSPHGGGLSQPYYP  
 QHPMVAESPSCLVATMAPCQQFRTGLSSPDARY QQNPAAVLYQRSKLSPLLLGYQQPALMAAPLSLAD  
 AHRSVLVHAGSQGSSALLHPSPTNQQASPVIIH YSPTNQQLRCSHQEFQHI MYCENFAPGTTTRPGPPP V  
 SQGQRLSPGSYPTVIQQNATSQRAAKNGPPVSD QKEVLPAGVTIKQEQLNDQTYL DDELIDTHLSWIQN  
 IL

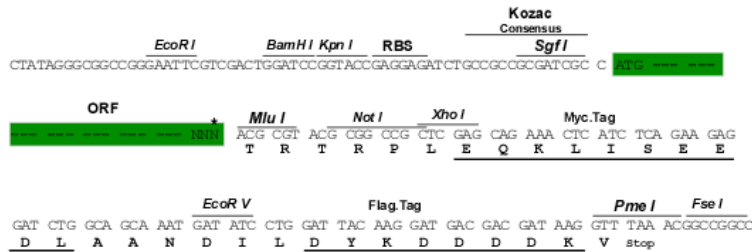
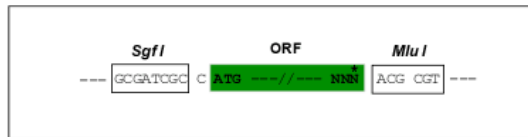
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001258294

**ORF Size:** 2106 bp

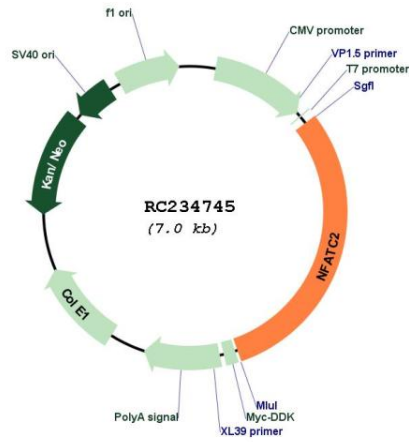
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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_001258294.2</a>
<b>RefSeq Size:</b>	6938 bp
<b>RefSeq ORF:</b>	2109 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>	77.1 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 RC234745