

## Product datasheet for **RC221730**

### NFAT2 (NFATC1) (NM\_172387) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT2 (NFATC1) (NM_172387) 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)



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**ORF Nucleotide Sequence:**

>RC221730 representing NM\_172387  
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACGGGGCTGGAGACCAGGAGTTGCACTTCGAGTTCTCTTCGAGTTTAACACGCGCAGCAGGGCG  
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 CCAGGCCCTGATGGGGCCCTGCCCTGGAGAGTCTCGCATCGAGATAACCTCGTGCTTGGCCCTGTACCA  
 CAACAATAACCAAGTTTTTCCACGATGTGGAGGTGGAAGACGTCTCCCTAGCTCCAAACGGTCCCCCTCC  
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 CCAGACGTCGCCATGGCAGTCTCCTGCGTGTCTCCAAGACCAGGACCCCGAGGAGGGCTTTCCCGCG  
 GGCTGGGGGCTGCACACTGCTGGGTTCCCCGCGGCACTCCCCCTCCACCTCGCCCCGCCAGGGTCA  
 CTGAGGAGAGCTGGCTGGGTGCCGCTCCTCCAGACCCGCGTCCCCTTGAACAAGAGGAAGTACAGCCT  
 CAACGGCCGCGCAGCCGCCCTACTCACCCACCCTCGCCACGCCGTCCCCGACGGCTCCCCGCGGGT  
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 GCCGACTTCGCGCCCGAAGACTACTCTCTTTCCAGCACATCAGGAAGGGCGGCTTCTGCGACAGTACC  
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 GCGAAAATGACCGGGACCTGTGCAAGCCGAATTCCTGTGGTGGTGGAGATCCCGCCATTTTCGGAATCAGA  
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 ACCTGCCGTCCACGGTCCGACGGACGAGTCTCCGACTGCCGGGCCACGGCTGCTGCCAGAGGTGCATGA  
 GGACGGTAGTCTAATTTGGCCCTATTCTGTAACGGTCAAGCGAGAGCCTGAAGAGTTGGACAGTTG  
 TACCTGGATGACGTAATGAAATAATACGAAATGACCTCTCCAGCAGGACCCACTCC

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 ATAAGGTTTAA**

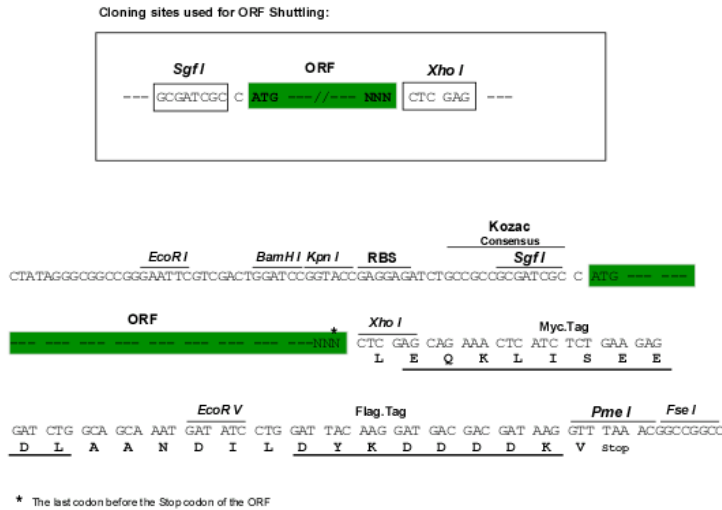
**Protein Sequence:** >RC221730 representing NM\_172387  
 Red=Cloning site Green=Tags(s)

MTGLEDQEFDFFFLFEFNQRDEGAAAAAPEHYGYASSNVSPALPLPTAHSTLPAPCHNLQTSTPGIIPPA  
 DHPSGYGAALDGGPAGYFLSSGHTRPDGAPELESPRIEITSCLGLYHNNNQFFHDVEVEDVLPSSKRSPS  
 TATLSLPSLEAYRDPSCLEPASSLSSRSCNSEASSYENSYSPYASPQTSWPQSPCVSPKTTDPEEGFPR  
 GLGACTLLGSPRHSPSTSPRASVTEESWLGARSSRPASPCNKRYSLNGRQPPYSPHHSPTSPHGSPRV  
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 PKSHHRAHYETEGSRGAVKASAGGHPVQLHGYLENEPLMLQLFIGTADDRLRPHAFYQVHRITGKTVS  
 TTSHEAILSNTKVLPIPLL PENSRAVIDCAGILKLRNSDIELRKGETDIGRKNTRVRLVFRVHVPQPSG  
 RTLSLQVASNPIECSQRS AQELPLVEKQSTDSYPVVGKKMVL SGHNFLQDSKVI FVEKAPDGHVWEME  
 AKTDRDLCKPNSLVVEIPFRNRITSPVHVSFYVCNGKRKRSQYQRFTYLPANVPIIKTEPTDDYEPAP  
 TCGPVSQGLSPLPRPYYSQQLAMPPDPSSCLVAGFPCCPQRSTLMPAAGVSPKLDLSPAAYTKGVASP  
 GHCHLGLPQPAGEAPAVQDVPRPVATHPGSPGQPPALLPQQVSAPPSSSCPPGLEHSLCPSSPSPPLPP  
 ATQEPTCLQPCSPACPPATGRPQHL PSTVRRDESPTAGPRLLEPEVHEDGSPNLAPIPVTVKREPEELDQL  
 YLDDVNEIIRNDLSSTSTHS

LEQKLISEEDLAANDILDYKDDDDK V

**Restriction Sites:** SgfI-XhoI

**Cloning Scheme:**



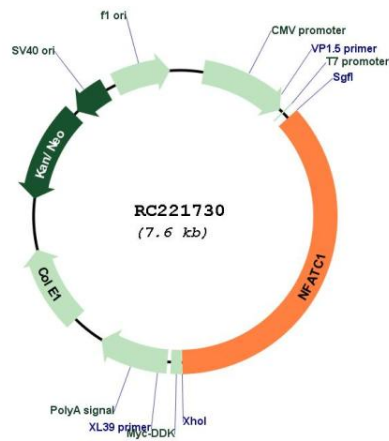
**ACCN:** NM\_172387

**ORF Size:** 2790 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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_172387.3</a>
<b>RefSeq Size:</b>	4621 bp
<b>RefSeq ORF:</b>	2793 bp
<b>Locus ID:</b>	4772
<b>UniProt ID:</b>	<a href="#">O95644</a>
<b>Cytogenetics:</b>	18q23
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Axon guidance, B cell receptor signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway
<b>MW:</b>	100.2 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 RC221730