

## Product datasheet for **RC213966**

### **NFAT1 (NFATC2) (NM\_173091) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NFAT1 (NFATC2) (NM_173091) 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:**

>RC213966 representing NM\_173091  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAACGCCCCCGAGCGGCAGCCCAACCCGACGGCGGGGACGCCCCAGGCCACGAGCCTGGGGCAGCC  
 CCCAAGACGAGCTTGACTTCTCCATCCTCTCGACTATGAGTATTGAATCCGAACGAAGAAGAGCCGAA  
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 CCATACAGCCCCCTTGCTAGTCTCTCTGGCGAGCCCCCGGCCGATTTCGGAGAGCCGGATAGGGTAGGGC  
 CGCAGAAGTTTCTGAGCGCGCCAAAGCCAGCAGGGGCCTCGGCCCTGAGCCCTCGGATCGAGATCACTCC  
 GTCCCACGAACTGATCCAGGCAGTGGGGCCCTCCGCATGAGAGACGCGGGCCTCCTGGTGGAGCAGCCG  
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 CGGGCCCACTATGAGACAGAAGGCAGCCGAGGGCTGTCAAAGCTCCAAGTGGAGGCCACCTGTGGTTC  
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 GACAAGAGCCAGCCCAACATGCTTTTTGTTGAGATCCCTGAATATCGGAACAAGCATATCCGCACACCTG  
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 TTCAGCAGCAGAAATGCCACGAGCCAAAGAGCCGCAAAAACGGACCCCGGTGAGTACAAAAGGAAGT  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC213966 representing NM\_173091  
 Red=Cloning site Green=Tags(s)

MNAPERQPQPDGGDAPGHEPGGSPQDELDF SILFDYEYLNPEEPEPNAHKVASPPSGPAYPDDVLDYGLK  
 PYSPLASLSGEPGRFGEPDRVGPQKFL SAAKPAGASGLSPRIEITPSHEL IQAVGLRMRDAGLLVEQP  
 PLAGVAASPRFTLPVPGFEGYREPLCLSPASSGSSASFISDTFSPYTPSPCVSPNNGGPDLLCPQFQNI  
 HYSPTSPIMSPRTSLAEDSCLGRHSPVPRPASRSSSPGAKRRHSCEALVALPPGASPQRSRSPSPQPS  
 SHVAPQDHGSPAGYPPVAGSAVIMDALNSLATDSPCGIPPKMWKTSPPSPVSAAPSAGLPRHIYPAVE  
 FLGPCEQGERRNSAPESILLVPPTWPKPLVPAIPICSIPTASLPLEWPLSSQSGSYELRIEVQPKPHH  
 RAHYETEGSRGAVKAPTGGHPVVQLHGYMENKPLGLQIFIGTADERILKPHAFYQVHRITGKTVTTTSYE  
 KIVGNTKYLEIPLPKNNMRATIDCAGILKLRNADIELRKGETDIGRKNTRVRLVFRVHIPESSGRIVSL  
 QTASNPIECSQRSHELPMVERQDTSCLVYGGQQMILTGQNF TSESKVVFEKTTDGGQIWE MEATVDK  
 DKSQPNMLFVEIPEYRNKHIRTVPKVN FYVINGKRKRSQPQHF TYHPVPAIKTEPTDEYDPTLICSP  
 THG GLG SQPYPYQHPMVAESPSCLVATMAPCQCFRTGLSSPDARYQQQNPAAVLYQRSKLSLSP  
 SLLGYQQPAL MAAPLSLADAHRSVLVHAGSQGSSALLHPSPTNQASPVIIHYSPTNQQLRCGSHQ  
 EFQ HIMY CENFAPG TTRPGPPVVSQGRQLSPGSYPTVIQQQ NATSQRAAKNGPPVSDQKEVLPAGV  
 TIKQEQLNDQTYLDDVNE IIRKEFSGPPARNQT

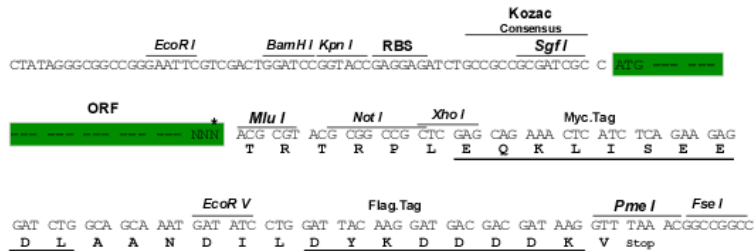
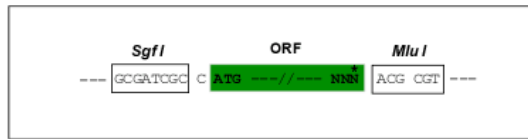
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3899\\_d09.zip](https://cdn.origene.com/chromatograms/mg3899_d09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



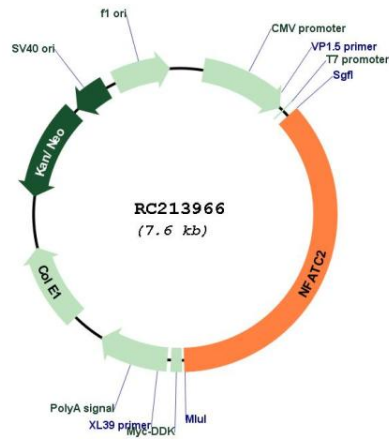
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_173091

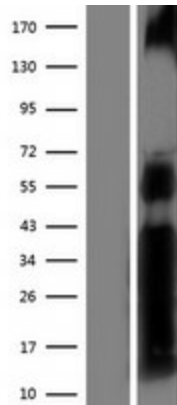
**ORF Size:** 2775 bp

<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_173091.4</a>
<b>RefSeq Size:</b>	3166 bp
<b>RefSeq ORF:</b>	2778 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>	100 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]

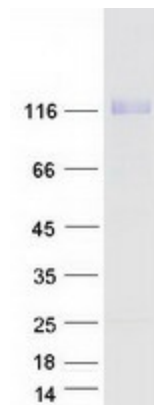
Product images:



Circular map for RC213966



Western blot validation of overexpression lysate (Cat# [LY406687]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213966 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NFATC2 protein (Cat# [TP313966]). The protein was produced from HEK293T cells transfected with NFATC2 cDNA clone (Cat# RC213966) using MegaTran 2.0 (Cat# [TT210002]).