

## Product datasheet for **RG213966**

### **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:	TurboGFP
Symbol:	NFAT1
Synonyms:	NFAT1; NFATP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG213966 representing NM\_173091  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAACGCCCCCGAGCGGCAGCCCCAACCCGACGGCGGGGACGCCCCAGGCCACGAGCCTGGGGCAGCC  
 CCCAAGACGAGCTTGACTTCTCCATCCTCTCGACTATGAGTATTGAATCCGAACGAAGAAGAGCCGAA  
 TGACATAAAGTTCGCGAGCCACCTCCGGACCCGCATACCCCGATGATGTCCTGGACTATGGCCTCAAG  
 CCATACAGCCCCCTTGTAGTCTCTCTGGCGAGCCCCCGGCCGATTTCGGAGAGCCGGATAGGGTAGGGC  
 CGCAGAAGTTTCTGAGCGCGCCAAAGCCAGCAGGGGCCTCGGCCCTGAGCCCTCGGATCGAGATCACTCC  
 GTCCCACGAACTGATCCAGGCAGTGGGGCCCTCCGCATGAGAGACGCGGGCCTCCTGGTGGAGCAGCCG  
 CCCCTGGCCGGGTGGCCGCCAGCCGAGGTTACCCCTGCCCGTCCCGGCTTCGAGGGCTACCCGAGC  
 CGCTTTGCTTGAAGCCCTAGCAGCGGCTCCTCTGCCAGCTTCATTTCTGACACCTTCTCCCCCTACAC  
 CTCGCCCTGCGTCTCGCCAATAACGGCGGGCCGACGACCTGTGTCCGAGTTTCAAACATCCCTGCT  
 CATTATCCCCCAGAACCTCGCCAATAATGTACCTCGAACCCAGCCTCGCCGAGGACAGCTGCCTGGGCC  
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 CGAGGCCCTTGGTTGCCCTGCCGCCCGGAGCCTCACCCAGCGCTCCCGGAGCCCTCGCCGAGCCCTCA  
 TCTCACGTGGCACCCAGGACCAGGCTCCCGGCTGGGTACCCCTGTGGTGGCTCTGCCGTGATCA  
 TGGATGCCCTGAACAGCCTCGCCACGGACTCGCCTTGTGGGATCCCCCAAGATGTGGAAGACCAGCCC  
 TGACCCCTCGCCGGTGTCTGCCGCCCATCCAAGCCGGCCTGCCTCGCCACATCTACCCGGCCGTGGAG  
 TTCTGGGGCCCTGCGAGCAGGGCGAGAGGAGAACTCGGCTCCAGAATCCATCTGTGGTTCCGCCCA  
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 CGGGCCCACTATGAGACAGAAGGCAGCCGAGGGCTGTCAAAGCTCCAAGTGGAGGCCACCTGTGGTTT  
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 CCTAAGCCGCACGCCTTCTACCAGGTGCACCGAATCACGGGAAAACTGTACCACCACCAGCTATGAG  
 AAGATAGTGGGAACACCAAGTCTGGAGATACCCTGGAGCCAAAAACAACATGAGGGCAACCATCG  
 ACTGTGCGGGGATCTTGAAGCTTAGAAACGCCGACATTGAGCTGCGGAAAGGCGAGACGGACATTGGAAG  
 AAAGAACACGCGGTGAGACTGGTTTTCCGAGTTCACATCCAGAGTCCAGTGGCAGAATCGTCTTTA  
 CAGACTGCATCTAACCCATCGAGTGTCTCCAGCGATCTGCTCAGGAGTCCCCATGGTTGAAAGACAAG  
 ACACAGACAGCTGCCTGTCTATGGCGGCCAGCAAATGATCCTCACGGGGCAGAAGTTTACATCCGAGTC  
 CAAAGTTGTGTTACTGAGAAGACCACAGATGGACAGCAAATTTGGGAGATGGAAGCCACCGTGGATAAG  
 GACAAGAGCCAGCCCAACATGCTTTTTGTTGAGATCCCTGAATATCGGAACAAGCATATCCGCACACCTG  
 TAAAAGTGAACCTTCTACGTCAATGGAAGAGAAAAAGTCAAGTCCAGCCTCAGCACTTTACCTACCACCC  
 AGTCCCAGCCATCAAGACGGAGCCACGGATGAATATGACCCACTCTGATCTGCAGCCCCACCCATGGA  
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 CCATGGCTCCCTGCCAGCAGTTCGCGACGGGCTCTCATCCCTGACGCCGCTACCAGCAACAGAACCC  
 AGCGGCCGTACTCTACCAGCGGAGCAAGAGCCTGAGCCCCAGCCTGCTGGGCTATCAGCAGCCGGCCCTC  
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 GCTCAGCCCTGCTCCACCCTCTCCGACCAACCAGCAGGCTCGCCTGTGATCCACTACTACCCACCAA  
 CCAGCAGCTGCGCTGCGGAAGCCACCAGGAGTTCAGCACATCATGTAAGTGCAGAAATTCGACCAGGC  
 ACCACCAGACCTGGCCCGCCCCGGTCAAGTCAAGGTGAGAGGCTGAGCCCGGTTCTACCCACAGTCA  
 TTCAGCAGCAGAAATGCCACGAGCCAAAGAGCCGCAAAAACGGACCCCGGTGAGTACAAAAGGAAGT  
 ATTACCTGCGGGGTGACCATTAACAGGAGCAGAAGTGGACCAGACCTACTTGGATGATGTTAATGAA  
 ATTATCAGGAAGGAGTTTTTCAGGACCTCCTGCCAGAAATCAGACG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG213966 representing NM\_173091  
 Red=Cloning site Green=Tags(s)

MNAPERQPQPDGGDAPGHEPGGSPQDELDF SILFDYEYLNPEEENAHKVASPPSGPAYPDDVLDYGLK  
 PYSPLASLSGEPGRFGEPDRVGPQKFL SAAKPAGASGLSPRIEITPSHEL IQAVGPLRMRDAGLLVEQP  
 PLAGVAASPRFTLPVPGFEGYREPLCLSPASSGSSASFISDTFSPYTPCVSPNNGGPDLLCPQFQNI  
 PAPHYSPTSPIMSPRTSLAEDSCLGRHSPVPRPASRSSSPGAKRRHSCEALVALPPGASPQRSRSPSPQPS  
 SHVAPQDHGSPAGYPPVAGSAVIMDALNSLATDSPCGIPPKMWKTPDPSFVSAAPSKAGLPRHIYPAVE  
 FLGPCEQGERRNSAPESILLVPPTWPKPLVPAIPICSIPVTASLPLEWPLSSQSGSYELRIEVQPKPHH  
 RAHYETEGSRGAVKAPTGGHPVVQLHGYMENKPLGLQIFIGTADERILKPHAFYQVHRITGKTVTTTSYE  
 KIVGNTKVLEIPLPKNNMRATIDCAGILKLRNADIELRKGETDIGRKNTRVRLVFRVHIPESSGRIVSL  
 QTASNPIECSQRSHELPMVERQDTSCLVYGGQQMILTGQNF TSESKVVFTEKTTDGGQIWEMEATV  
 DKSQPNMLFVEIPEYRNKHIRTVPKVN FYVINGKRKRSQPQHF TYHPVPAIKTEPTDEYDPTLICSP  
 THGLG SQPYYPQHPMVAESPSCLVATMAPCQQFRTGLSSPDARYQQQNPAAVLYQRSKLSPLLLG  
 YQQPALMAAPLSLADAHRSVLVHAGSQGSSALLHPSPTNQQASPVIIHYSPTNQQLRCGSHQEFQ  
 HIMYCENFAPGTTTRPGPPVVSQGRQLSPGSYPTVIQQQ NATSQRAAKNGPPVSDQKEVLPAGV  
 TIKQEQLNDQTYLDDVNEIIRKEFSGPPARNQT

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

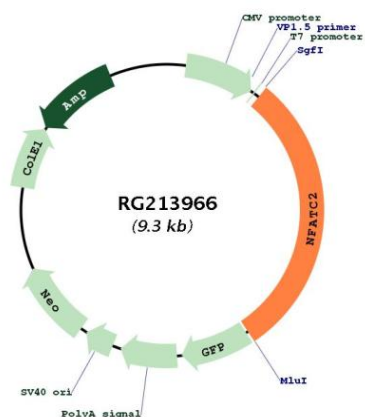
Cloning Scheme:



ACCN: NM\_173091

<b>ORF Size:</b>	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>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 RG213966