

## Product datasheet for **RG211136**

### **NFAT2 (NFATC1) (NM\_172390) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NFAT2 (NFATC1) (NM_172390) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NFAT2
Synonyms:	NF-ATC; NF-ATc1.2; NFAT2; NFATc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG211136 representing NM\_172390  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAAGCACCAGCTTTCCAGTCCCTTCCAAGTTTCCACTTGGCCCTGCGGCTGCGGTCTTCGGGAGAG  
 GAGAAACTTTGGGGCCCGCCGCGCGCCGGCGCACCATGAAGTCAGCGGAGGAAGAACAATATGGCTA  
 TGCATCCTCCAACGTCAGCCCGCCCTGCGCTCCCCACGGCGCACTCCACCCTGCCGGCCCGTGCCAC  
 AACCTTCAGACTCCACACCGGGCATCATCCCGCCGGCGGATCACCCCTCGGGGTACGGGGCAGCTTTGG  
 ACGGTGGGCCCGGGCTACTTCTCTCTCCGGCCACACCAGGCCTGATGGGGCCCTGCCCTGGAGAG  
 TCCTCGCATCGAGATAACCTCGTGCTTGGGCTGTACCACAACAATAACCAGTTTTTCCACGATGTGGAG  
 GTGGAAGACGTCCTCCCTAGCTCCAACGGTCCCCCTCCACGGCCACGCTGAGTCTGCCAGCCTGGAGG  
 CCTACAGAGACCCTCGTGCCTGAGCCCGCCAGCAGCCTGTCTCCCGAGCTGCAACTCAGAGGCCTC  
 CTCTACGAGTCCAATACTACTCGTACCCGTACGCGTCCCCCAGAGCTCGCATGGCAGTCTCCCTGCGTG  
 TCTCCAAAGACCAGGACCCCGAGGAGGGCTTTCCCCGCGGGCTGGGGGCTGCACACTGCTGGGTCCC  
 CGCGGCACTCCCCCTCCACCTCGCCCGCGCCAGCGTCACTGAGGAGAGCTGGTGGGTGCCCGCTCCTC  
 CAGACCCGCGTCCCCGTGCAACAAGAGGAAGTACAGCCTCAACGGCCGGCAGCCGCCCTACTCACCCAC  
 CACTCGCCACGCGTCCCCGCACGGCTCCCCGCGGGTCAAGCTGACCGAGCACTCGTGGTTGGCAACA  
 CCACCCAGTACACCAGCTCGGCCATCGTGGCCGCATCAACGCGTGACCAACGACAGCAGCCTGGACCT  
 GGGAGATGGCGTCCCTGTCAAGTCCCGCAAGACCACCTGGAGCAGCCGCCCTCAGTGGCGCTCAAGGTG  
 GAGCCCGTGGGGAGGACCTGGGCAGCCCCCGCCCGCCCGGCGGACTTCGCGCCGAAGACTACTCCTCTT  
 TCCAGCACATCAGGAAGGGCGGCTTCTGCGACCAGTACCTGGCGGTGCCGAGCAGCACCCTACCAGTGGC  
 GAAGCCCAAGCCCTGTCCCTACGTCTACATGAGCCCGACCCTGCCCGCCCTGGACTGGCAGCTGCCG  
 TCCCACTCAGGCCGTATGAGCTTCGGATTGAGGTGCAGCCAAAGTCCCACCACCGAGCCCACTACGAGA  
 CGGAGGGCAGCCGGGGGCGGTGAAGGCGTGGCCGGAGGACACCCCATCGTGCAGCTGCATGGCTACTT  
 GGAGAATGAGCCGCTGATGCTGCAGTTTTTATTGGGACGGCGGACGACCCGCTGCTGCGCCGACGCGC  
 TTCTACCAGGTGCACCGCATCACAGGGAAGACCGTGTCCACCACCAGCCACGAGGCCATCCTCTCCAACA  
 CCAAAGTCTGGAGATCCCACTCCTGCCGAGAACAGCATGCGAGCCGTCATTGACTGTGCCGAATCCT  
 GAAACTCAGAACTCCGACATTGAATTCGAAAGGAGAGACGGACATCGGGAGGAAGAACAACACGGGTA  
 CGGCTGGTGTCCGCTTACGTCGCAACCCAGCGCCGACGCTGTCCCTGCAGGTGGCCTCAACCC  
 CCATCGAATGCTCCAGCGCTCAGCTCAGGAGTGCCTCTGGTGGAGAAGCAGAGCAGGACAGCTATCC  
 GGTCTGGGGGGGAAGAAGATGGTCTGTCTGGCCACAATTCCTGCAGGACTCCAAGGTCAATTTTCGTG  
 GAGAAAGCCCGATGGCCACCATGTCTGGGAGATGGAAGCGAAAATGACCGGGACCTGTGCAAGCCGA  
 ATTCTCTGGTGGTTGAGATCCCGCATTTCGGAATCAGAGGATAACCAGCCCGTTACAGTCAGTTTCTA  
 CGTCTGCAACGGGAAGAGAAAGCGAAGCCAGTACCAGCGTTTACCTACCTTCCCGCCAACGTAACGCC  
 ATCTTTTAACCGTAAGCCGTGAACATGAGCGCGTGGGGTGTCTTTTC

AG**CGGACCG**ACGCGTACGCGCCGCTCGAG - GFP Tag - GTTTAA

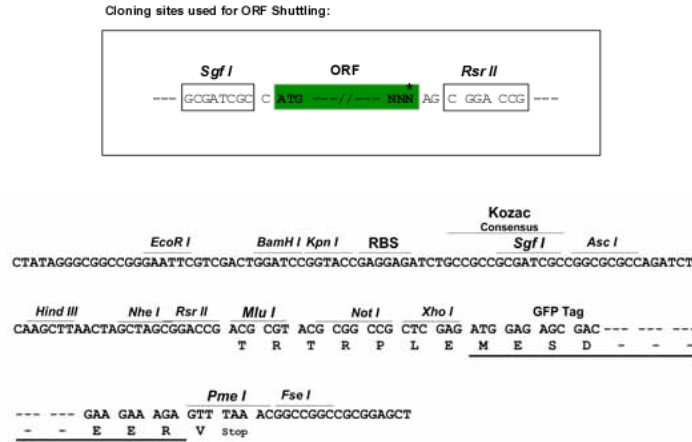
**Protein Sequence:** >RG211136 representing NM\_172390  
 Red=Cloning site Green=Tags(s)

MPSTSFVPVPSKFPLGPAAAVFRGETLGPAPRAGGTMKSAEEEHYGYASSNVSPALPLPTAHSTLPAPCH  
 NLQTSTPGIIPPADHPSGYGAALDGGPAGYFLSSGHTRPDGAPALESPRIEITSCLGLYHNNNQFFHDVE  
 VEDVLPSSKRSPSTATLSLPSLEAYRDPSCSPASSLSSRSCNSEASSYESNYSYPYASPTSPWQSPCV  
 SPKTTDPEEGFPRGLGACTLLGSPRHSPSTSPRASVTEESWLGARSSRPASPCNKRYSLNGRQPPYSPH  
 HSPTSPHSGSPRVSVTDDSWLGNTTQYTSVAIVAAINALTTDSSLDLGDGVPVKSRKTTLEQPPSVALKV  
 EPVGEDLGSPPPPADFAPEDYSSFQHIRKGGFCQQLAVPQHPYQWAKPKPLSPTSYMSPTLPALDWQLP  
 SHSGPYELRIEVQPKSHHRAHYETEGSRGAVKASAGGHPVQLHGYLENEPLMLQLFIGTADDRLLRPHA  
 FYQVHRITGKTVSTTSHEAAILSNKVLKIPLLPENSMRAVIDCAGILKLRNSDIELRKGETDIGRKNTRV  
 RLVFRVHVPQPSGRTLSQLQVSNPIECSQRSAQELPLVEKQSTDSYPVVGKKMVLSGHNFLQDSKVIKIV  
 EKAPDGHVWEMEAKTDRDLCKPNSLVVEIPFRNQRITSPVHVSFYVCNGKRRKRSQYQRFYLPANGNA  
 IFLTVSREHERVGCFF

SGPTRRRLE - GFP Tag - V

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_172390

**ORF Size:** 2148 bp

**OTI Disclaimer:** 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 [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

**RefSeq:** [NM\\_172390.1, NP\\_765978.1](#)

**RefSeq Size:** 3140 bp

**RefSeq ORF:** 2151 bp

**Locus ID:** 4772

**UniProt ID:** [O95644](#)

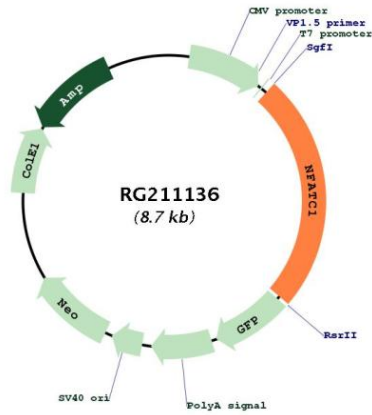
**Cytogenetics:** 18q23

**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Axon guidance, B cell receptor signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway

**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 RG211136