

Product datasheet for **RG215180**

NFAT1 (NFATC2) (NM_012340) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT1 (NFATC2) (NM_012340) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RG215180 representing NM_012340
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACGCCCCCGAGCGGCAGCCCCAACCCGACGGCGGGGACGCCCCAGGCCACGAGCCTGGGGCAGCC
 CCCAAGACGAGCTTGACTTCTCCATCCTCTCGACTATGAGTATTGAATCCGAACGAAGAAGAGCCGAA
 TGACATAAAGTTCGCGAGCCACCTCCGGACCCGCATACCCCGATGATGTCCTGGACTATGGCCTCAAG
 CCATACAGCCCCCTTGCTAGTCTCTCTGGCGAGCCCCCGGCCGATTTCGGAGAGCCGGATAGGGTAGGGC
 CGCAGAAGTTTCTGAGCGCGGCCAAGCCAGCAGGGGCCTCGGCCCTGAGCCCTCGGATCGAGATCACTCC
 GTCCCAGAACTGATCCAGGCAGTGGGGCCCTCCGCATGAGAGACGCGGGCCTCCTGGTGGAGCAGCCG
 CCCCTGGCCGGGTGGCCGCCAGCCGAGGTTACCCCTGCCCGTCCCGGCTTCGAGGGCTACCCGAGC
 CGCTTTGCTTGAGCCCCCTAGCAGCGGCTCCTCTGCCAGCTTCATTTCTGACACCTTCTCCCCCTACAC
 CTCGCCCTGCGTCTCGCCAATAACGGCGGGCCGACGACCTGTGTCCGAGTTTCAAACATCCCTGCT
 CATTATCCCCCAGAACCTCGCCAATAATGTACCTCGAACCCAGCCTCGCCGAGGACAGCTGCCTGGGCC
 GCCACTCGCCCGTCCCGCTCCGGCCTCCCGCTCCTCATCGCCTGGTCCAAAGCGGAGGCATTCTGTGCGC
 CGAGGCCTTGTTGCCCTGCCGCCCGGAGCCTCACCCAGCGCTCCCGGAGCCCTCGCCGACGCCCTCA
 TCTCACGTGGCACCCAGGACCAGGCTCCCGGCTGGGTACCCCTGTGGTGGCTCTGCCGTGATCA
 TGGATGCCCTGAACAGCCTCGCCACGGACTCGCCTTGTTGGGATCCCCCAAGATGTGGAAGACCAGCC
 TGACCCCTCGCCGGTGTCTGCCGCCCATCCAAGCGCGCCTGCCTCGCCACATCTACCCGGCCGTGGAG
 TTCTGGGGCCCTGCGAGCAGGGCGAGAGGAAAACCTCGGCTCCAGAATCCATCTGTGGTTCCGCCCA
 CTTGGCCCAAGCCGCTGGTGCCTGCCATTCCTATCTGCAGCATCCAGTACTGCATCCCTCCCTCACT
 TGAGTGGCCGCTGTCCAGTCAGTCAGGCTCTTACGAGCTGCGGATCGAGGTGCAGCCCAAGCCACATCAC
 CGGGCCCACTATGAGACAGAAGGCAGCCGAGGGCTGTCAAAGCTCCAAGTGGAGGCCACCTGTGGTTC
 AGCTCCATGGCTACATGGAACAAGCCTCTGGGACTTCAGATCTTATTGGGACAGCTGATGAGCGGAT
 CCTAAGCCGCACGCCTTCTACCAGGTGCACCGAATCACGGGAAAACCTGTCAACCACCAGCTATGAG
 AAGATAGTGGCAACACCAAGTCTGGAGATACCCTTGAGCCAAAAACAACATGAGGGCAACCATCG
 ACTGTGCGGGGATCTTGAAGCTTAGAAACGCCGACATTGAGCTGCGGAAAGGCGAGACGGACATTGGAAG
 AAAGAACACGCGGTGAGACTGGTTTTCCGAGTTCACATCCAGAGTCCAGTGGCAGAATCGTCTTTA
 CAGACTGCATCTAACCCATCGAGTGTCCCAGCGATCTGCTCAGGAGTCCCCATGGTTGAAAGACAAG
 ACACAGACAGCTGCCTGTCTATGGCGGCCAGCAAATGATCCTCACGGGGCAGAACCTTACATCCGAGTC
 CAAAGTTGTGTTACTGAGAAGACCACAGATGGACAGCAAATTTGGGAGATGGAAGCCACCGTGGATAAG
 GACAAGAGCCAGCCCAACATGCTTTTTGTTGAGATCCCTGAATATCGGAACAAGCATATCCGCACACCTG
 TAAAAGTGAACCTTCTACGTCATCAATGGGAAGAGAAAACGAAGTCAAGCCTCAGCACTTTACCTACCACC
 AGTCCCAGCCATCAAGACGGAGCCACGGATGAATATGACCCACTCTGATCTGCAGCCCCACCCATGGA
 GGCTGGGGAGCCAGCCTTACTACCCAGCACCAGGATGGTGGCCGAGTCCCCCTCCTGCCTCGTGGCCA
 CCATGGCTCCCTGCCAGCAGTCCGCACGGGGCTCTCATCCCTGACGCCGCTACCAGCAACAGAACCC
 AGCGCCGTACTCTACCAGCGGAGCAAGAGCCTGAGCCCCAGCCTGCTGGGCTATCAGCAGCCGGCCCTC
 ATGGCCGCCCCGCTGTCCCTTGGGACGCTCACCGCTCTGTGCTGGTGCAGCCGGCTCCAGGGCCAGA
 GCTCAGCCCTGCTCCACCCTCTCCGACCAACCAGCAGGCTCGCCTGTGATCCACTACTACCCACCAA
 CCAGCAGCTGCGCTGCGGAAGCCACCAGGATTCAGCACATCATGTAAGTGCAGAAATTCGACACCAGGC
 ACCACCAGACCTGGCCCGCCCCGGTCAAGTCAAGGTGAGAGGCTGAGCCCGGTTCTACCCACAGTCA
 TTCAGCAGCAGAAATGCCACGAGCCAAAGAGCCGCAAAAACGGACCCCGGTGAGTACAAAAGGAAGT
 ATTACCTGCGGGGTGACCATTAACAGGAGCAGAACTGGACCAGACCTACTTGGATGATGAGCTGATA
 GACACACACCTTAGCTGGATAAAAAACATATTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215180 representing NM_012340
 Red=Cloning site Green=Tags(s)

MNAPERQPQPDGGDAPGHEPGGSPQDELDF SILFDYEYLNPNEEEEPNNAHKVASPPSGPAYPDDVLDYGLK
 PYSPLASLSGEPGRFGEPDRVGPQKFL SAAKPAGASGLSPRIEITPSHEL IQAVGPLRMRDAGLLVEQP
 PLAGVAASPRFTLPVPGFEGYREPLCLSPASSGSSASFISDTFSPYTPCVSPNNGGPDLLCPQFQNI
 HYSPTSPIMSPRTSLAEDSCLGRHSPVPRPASRSSSPGAKRRHSCEALVALPPGASPQRSRSPSPQPS
 SHVAPQDHGSPAGYPPVAGSAVIMDALNSLATDSPCGIPPKMWKTPDPSPVSAAPSKAGLPRHIYPAVE
 FLGPCEQGERRNSAPESILLVPPTWPKPLVPAIPICSIPVTASLPLEWPLSSQSGSYELRIEVQPKPHH
 RAHYETEGSRGAVKAPTGGHPVVQLHGYMENKPLGLQIFIGTADERILKPHAFYQVHRITGKTVTTTSYE
 KIVGNTKVLEIPLPKNNMRATIDCAGILKLRNADIELRKGETDIGRKNTRVRLVFRVHIPESSGRIVSL
 QTASNPIECSQRSHELPMVERQDTSCLVYGGQQMILTGQNF TSESKVVFTEKTTDGGQIWEMEATV
 DKSQPNMLFVEIPEYRNKHIRTVPKVN FVYINGKRKRSQPQHF TYHPVPAIKTEPTDEYDPTLICSP
 THGLGSQPYYPQHPMVAESPSCLVATMAPCQQFRTGLSSPDARYQQQNPAAVLYQRSKLSLSP
 SLLGYQQPALMAAPLSLADAHRSVLVHAGSQGSSALLHPSPTNQQASPVIIHYSPTNQQLRCGSHQ
 EFQHIMYCENFAPGTTTRPGPPVVSQGRQLSPGSYPTVIQQQ NATSQRAAKNGPPVSDQKEVLPAG
 VTIKQEQLNDQTYLDELIDTHLSWIQNIL

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

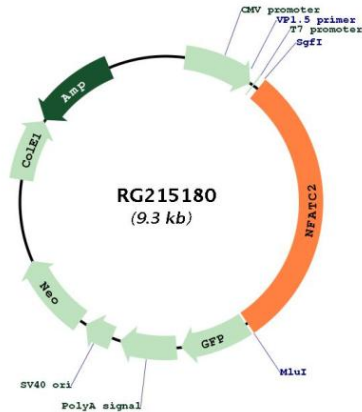


ACCN: NM_012340

ORF Size:	2763 bp
OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
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:	<ol style="list-style-type: none"> 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_012340.5
RefSeq Size:	3254 bp
RefSeq ORF:	2766 bp
Locus ID:	4773
UniProt ID:	Q13469
Cytogenetics:	20q13.2
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	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

Gene Summary:

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 RG215180