

Product datasheet for **RG226803**

NFAT1 (NFATC2) (NM_001136021) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT1 (NFATC2) (NM_001136021) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NFATC2
Synonyms:	NFAT1; NFATP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG226803 representing NM_001136021
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAGAGAGAGGCTGCGTTTCAGACTGGGGCACTGCCATCCCCTCCGCATCATGGGTCTGTGGACCAAG
 AAGAGCCGAATGCACATAAGGTCGCCAGCCACCTCCGGACCCGCATACCCCGATGATGTCCTGGACTA
 TGGCCTCAAGCCATACAGCCCCCTTGTAGTCTCTTGGCGAGCCCCCGGCCGATTTCGGAGAGCCGGAT
 AGGGTAGGGCCGAGAAGTTTCTGAGCGCGCCAAAGCCAGCAGGGGCTCGGGCTGAGCCCTCGGATCG
 AGATCACTCCGTCCCACGAAGTATCCAGGCAGTGGGGCCCTCCGCATGAGAGACGCGGGCTCCTGGT
 GGAGCAGCCGCCCTGGCCGGGTGGCCGCCAGCCGAGGTTACCTGCCCGTCCCGGCTTCGAGGGC
 TACCGCGAGCCGCTTGTGTTGAGCCCCGTAGCAGCGGCTCCTCTGCCAGCTTCATTTCTGACACCTTCT
 CCCCCTACACCTGCCCTGCGTCTGCCAATAACGGCGGGCCGACGACCTGTGTCCGAGTTTAAAA
 CATCCCTGCTCATTATCCCCCAGAACCTGCCAATAATGTCACCTCGAACCCAGCTCGCCGAGGACAGC
 TGCTGGGCCGCCACTCGCCCGTCCCGCTCCCGCTCCCTCATCGCTGGTGCCAAAGCGGAGGC
 ATTCGTGCGCCGAGGCCTTGGTTGCCCTGCCGCCGGAGCCTCACCCAGCGCTCCCGGAGCCCTCGCC
 GCAGCCCTCATCTCACGTGGCACCCAGGACCAGGCTCCCGGCTGGGTACCCCTGTGGCTGGCTCT
 GCCGTGATCATGGATGCCCTGAACAGCCTCGCCACGGACTCGCCTGTGGGATCCCCCAAGATGTGGA
 AGACCAGCCCTGACCCCTCGCCGGTGTCTGCCGCCCATCAAGGCCGGCTGCCCGCCACATCTACCC
 GGCCGTGGAGTTCCTGGGGCCCTGCGAGCAGGGCAGAGGAGAACTCGGCTCCAGAATCCATCCTGCTG
 GTTCCGCCACTTGGCCCAAGCCGCTGGTGCCTGCCATTCCCATCTGCAGCATCCAGTACTGCATCCCA
 TCCCTCCACTTGAGTGGCCGCTGTCAGTCAGTCAGGCTTTACGAGCTGCGGATCGAGGTGCAGCCAA
 GCCACATCACCGGCCCACTATGAGACAGAAGGCAGCCGAGGGGCTGTCAAAGCTCAAAGTGGAGGCCAC
 CCTGTGGTTTACGCTCCATGGCTACATGGAACAAGCCTCTGGGACTTCAGATCTTCATTGGGACAGCTG
 ATGAGCGGATCCTTAAGCCGCACGCCTTACCAGGTGCACCGAATCACGGGAAAACTGTCAACCCAC
 CAGCTATGAGAAGATAGTGGGAACACCAAGTCTGGAGATACCTTGGAGCCAAAAACAACATGAGG
 GCAACCATCGACTGTGCGGGATCTTGAAGCTTAGAAACGCCGACATTGAGCTGCGGAAAGGCGAGACGG
 ACATTGGAAGAAAGAACACGCGGTGAGACTGGTTTTCCGAGTTCACATCCAGAGTCCAGTGGCAGAA
 CGTCTCTTACAGACTGCATCTAACCCATCGAGTGTCCAGCGATCTGCTCACGAGCTGCCATGGT
 GAAAGACAAGACACAGACAGCTGCCTGGTCTATGGCGCCAGCAATGATCCTCACGGGGCAGAACTTTA
 CATCCGAGTCAAAGTTGTGTTACTGAGAAGACCACAGATGGACAGCAATTTGGGAGATGGAAGCCAC
 GGTGGATAAGGACAAGAGCCAGCCCAACATGCTTTTTGTTGAGATCCCTGAATATCGGAACAAGCATATC
 CGCACACCTGTAAAAGTGAATTCTACGTCAATGGAAGAGAAAAACGAAGTCAGCCTCAGCACTTTA
 CCTACCACCCAGTCCCAGCCATCAAGACGGAGCCACGGATGAATATGACCCCACTCTGATCTGCAGCCC
 CACCCATGGAGGCCTGGGGAGCCAGCCTTACTACCCCAAGCAGCCGATGGTGGCCGAGTCCCCCTCCTGC
 CTCGTGGCCACCATGGCTCCCTGCCAGCAGTTCGCACGGGGCTCTCATCCCCTGACGCCGCTACCAGC
 AACAGAACCAGCGGCCGTACTCTACCAGCGGAGCAAGAGCCTGAGCCCCAGCCTGCTGGGCTATCAGCA
 GCCGGCCCTCATGGCCGCCCGCTGTCCCTTGGCGACGCTCACCGCTCTGTGCTGGTGCAGCGCCGCTCC
 CAGGGCCAGAGCTCAGCCCTGTCCACCCTCTCCGACCAACCAGCAGGCTCGCCTGTGATCCACTACT
 CACCCACCAACCAGCAGCTGCGCTGCGGAAGCCACCAGGAGTTCAGCACATCATGTAAGTGCAGAAATTT
 CGCACCAGGCACCACCAGACCTGGCCGCCCGGTCAGTCAAGGTGAGAGGCTGAGCCCGGTTCTAC
 CCCACAGTCAATCAGCAGCAGAAATGCCACGAGCCAAAGAGCCGCAAAAACGGACCCCGGTCAGTGACC
 AAAAGGAAGTATTACCTGCGGGGTGACCATTAACAGGAGCAGAACTTGGACCAGACCTACTTGGATGA
 TGAGCTGATAGACACACCTTAGCTGGATACAAAACATATTA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – **GTTTAA**

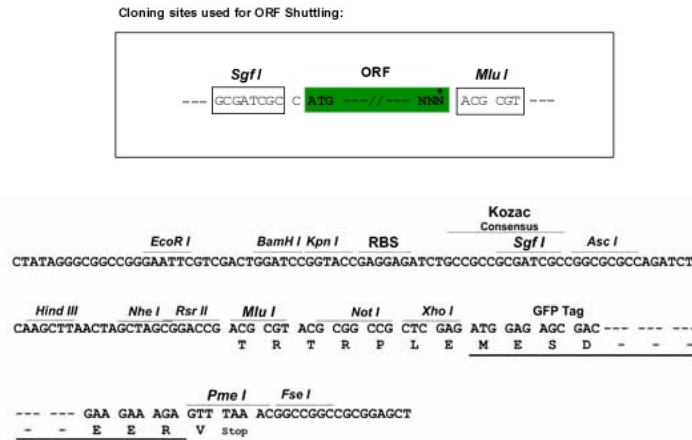
Protein Sequence: >RG226803 representing NM_001136021
 Red=Cloning site Green=Tags(s)

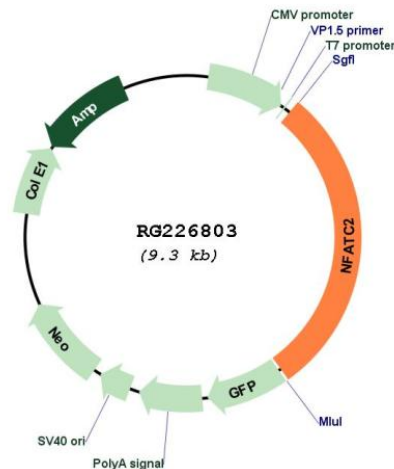
MQREAAFRLGHCHPLRIMGSDQEEPNAHKVASPPSGPAYPDDVLDYGLKPYSPLASLGEPPGRFGEPD
 RVGPQKFLSAAKAGASGLSPRIEITPSHEL IQAVGLRMRDAGLLVEQPPLAGVAASPRFTLPVPGFEG
 YREPLCLSPASSGSSASFISDTFSPYTPSPVSPNNGPDDLCPQFQNIPIAHYSPRTSPIMSPRTSLAEDS
 CLGRHSPVPRPASRSSSPGAKRRHSCEALVALPPGASPQRSRSPSPQSSHVAPQDHGSPAGYPPVAGS
 AVIMDALNSLATDSPCGIPPKMWTSPDPSPVSAAPSKAGLPRHIYPAVEFLGPCEQGERNSAPESILL
 VPPTWPKPLVPAIPICSIPTVATSLPPEWPLSSQSGSYELRIEVQPKPHHRAHYETEGSRGAVKAPTGGH
 PVVQLHGMYENKPLGLQIFIGTADERILKPHAFYQVHRITGKTVTTTTSYEKIVGNTKVL EIPLEPKNNMR
 ATIDCAGILKLRNADIELRKGETDIGRKNTRVRLVFRVHIPESGRIVSLQTASNPIECSQRSARELPMV
 ERQDTSCLVYGGQMMILTGQNF TSEKVVFTTEKTTDGGQIWEMEATVDKDKSQPNMLFVEIPEYRNKHI
 RTPVKVNFYVINGKRKRSQPQHF TYHPVPAIKTEPTDEYDPTLICSPTHGGLGSQPYPQHPMVAESPSC
 LVATMAPCQQFRTGLSSPDARYQQNPAAVLYQRSKSLSPSLLGYQQPALMAAPLSLADAHRSVL VHAGS
 QGQSSALLHPSPNTQQASPVIIHYSPTNQQLRCCSHQEFQHIMYCENFAPGTTTRPGPPPVSQGRQLSPGSY
 PTVIQQNATSQRAAKNGPPVSDQKEVLPAGVTIKQEQLDQTYLDDELIDTHLSWIQNIL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001136021

ORF Size: 2703 bp

OTI Disclaimer: 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_001136021.3](#)

RefSeq Size: 2974 bp

RefSeq ORF: 2706 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]