

## Product datasheet for **RG223000**

### NFAT4 (NFATC3) (NM\_173163) Human Tagged ORF Clone

#### Product data:

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                         |
| Product Name:             | NFAT4 (NFATC3) (NM_173163) Human Tagged ORF Clone                           |
| Tag:                      | TurboGFP                                                                    |
| Symbol:                   | NFATC3                                                                      |
| Synonyms:                 | NF-AT4c; NFAT4; NFATX                                                       |
| Mammalian Cell Selection: | Neomycin                                                                    |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                                     |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                      |
| ORF Nucleotide Sequence:  | >RG223000 representing NM_173163<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACTACTGCAAACGTGGCGCCACGACGAGCTCGACTTCAAACCTCGTCTTTGGCGAGGACGGGGCGC  
CGGCGCCCGCCCGGGCTCGCGCCGCAGATCTTGAGCCAGATGATTGTGCATCCATTTACATCTT  
TAATGTAGATCCACCTCCATCTACTTTAACCACACCACCTTTGCTTACCACATCATGGATTACCGTCTCAC  
TCTTCTGTTTTGCACCATCGTTTCAGCTCCAAAGTCAAAAACTATGAAGGAACCTGTGAGATTCCTG  
AATCTAAATATAGCCATTAGGTGGTCCAAACCTTTGAGTGCCCAAGTATTCAAATTACATCTATCTC  
TCCAACTGTCATCAAGAATTAGATGCACATGAAGATGACCTACAGATAAATGACCCAGAACGGGAATTT  
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CTAGTCCTGCCAGCAGCATCTCTTCTAGGAGTTGGTTCTCTGATGCATCTTCTTGTGAATCGCTTTCACA  
TATTTATGATGATGTGGACTCAGAGTTGAATGAAGCTGCAGCCGATTTACCCCTGGATCCCCTCTGACT  
TCTCCTGGTGGCTCTCCAGGGGGCTGCCCTGGAGAAGAACTTGGCATCAACAGTATGGACTTGGACACT  
CATTATCACCCAGGCAATCTCCTTGCCACTCTCCTAGATCCAGTGCATGATGAGAATTGGCTGAGCCC  
CAGGCCAGCCTCAGGACCCTCATCAAGGCCACATCCCCCTGTGGAAACGGAGGCACTCCAGTGTGAA  
GTTTGTATGCTGGTCCCTTTACCCCATCACTCACCTGTTCTTCCCTCACCTGGTCACTCCCCAGGGGAA  
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ATTTCACTGTGTAGAGACTGACATCCCTCTCAAAACAAGGAAAACCTCTGAAGATCAAGCTGCCATA  
CTACCAGGAAAATTAGAGCTGTGTTTCAAGATGACCAAGGGAGTTTATCACCAGCCCGGAGACTTCAATAG  
ATGATGGCCTTGGATCTCAGTATCCTTTAAAGAAAGATTCATGTGGTGTGATGATTTCTTTTCAAGTCTTCC  
ACCCTTTACCTGGAGCAAACCAAGCCTGGCCACACCCCTATATTTGACATCTTCACTTACCTCCACTA  
GACTGGCCTTTACCAGCTCATTTTGGACAATGTGAAGTAAAATAGAAGTGAACCTAAAACCTCATCATC  
GAGCCCATATGAAACTGAAGGTAGCCGAGGGGAGTAAAAGCATCTACTGGGGACATCCTGTTGTGAA  
GCTCCTGGGCTAACGAAAAGCCAATAAATCTACAAATGTTTATTGGGACAGCAGATGATCGATATTTA



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CGACCTCATGATTTTACCAGGTGCATCGAATCACTGGGAAGACAGTCGCTACTGCAAGCCAAGAGATAA
TAATTGCCAGTACAAAAGTTCTGGAAATCCACTTCTTCTGAAAATAATATGTCAGCCAGTATTGATTG
TGCAGGTATTTTAAAACCTCCGCAATTCAGATATAGAATTCGAAAAGGAGAACTGATATTGGCAGAAAAG
AATACTAGAGTACGACTTGTGTTTCGTGTACACATCCCACAGCCCAGTGGAAAAGTCTTTCTCTGCAGA
TAGCCTCTATACCCGTTGAGTGTCCCAGCGGTCTGCTCAAGAACTTCTCATATTGAGAAGTACAGTAT
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CAACCTATTACATATGGTCCTTACATTCAGGGTCTGCTACAACAGCTTCCCCAGCAGCTTCTCATCCCT
TGGCTAGTTCACCGCTTCTGGGCCACCATCTCCTCAGCTTACGCTTACCAATCTCCTAGCTC
AGGAACTGCCTCATCACCGTCTCCAGCCACCAGAATGCATTCTGGACAGCACTCAACTCAAGCACAAGT
ACGGGCCAGGGGGTCTTCTGCACCTTCACTTAATATGTACAGTTTGTGTGATCCAGCGTCATTTT
CACCTGATGGGGCAACTGTGAGCATTAAACCTGAACCAGAAGATCGAGAGCCTAACTTTGCAACCAATTGG
TCTGCAGGACATCACTTTAGATGATGATTTGTTTACCAGTAATAATTTTGACTTGCTTCAGTTGAGACCT
ACGTTTTGGCCAGTCCCAGCAGGAAGATATCTGAGGAATCTAGAG
```

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG223000 representing NM\_173163  
 Red=Cloning site Green=Tags(s)

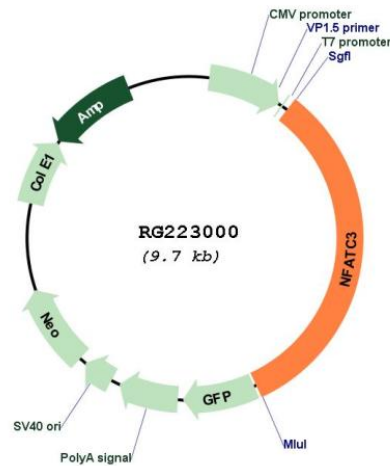
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MTTANCGAHDELDFKLVFGEDGAPAPPPGSRPADLEPDDCASIIYIFNVDPSTLTTPCLPHHGLPSH
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LERPSRDHLYLPLEPSYRESSLSPSPASSISSRSWFSDASSCESLSHIYDDVDSELNEAAARFTLGSPLT
SPGGSPGGCPGEETWHQYVGLGHSLSRQSPCHSPRSSVTDENWLSRPPASGPSSRPTSPCGKRRHSSAE
VCYAGSLSPHHSVPVSPGHSPRGSVTEDTWLNASVHGGSGLGPVFPFQYCVETDIPLKTRKTSQAAI
LPKLELCSDDQGSLSARETSIDDGLGSQYPLKKDSCGDQFLSVSPFTWSKPKPGHTPIFRTSSLPPL
DWPLPAHFGQCELKIEVQPKTHHRAHYETEGSRGAVKASTGGHPVVKLLGYNEKPINLQMFIGTADDRYL
RPHAFYQVHRITGKTVATASQEI I IASTKVLEIPLL PENNMSASIDCAGILKLRNSDIELRKGETDIGRK
NTRVRLVFRVHIPQPSGKVL SLQIASIPVECSQRS AQELPHIEKYSINSCSVNGGHEMVVTSNFLPESK
IIFLEKGDGRPQWEVEGKI IREKCGAHIVLEVPPYHNPAVTA AVQVHFYLCNGKRKKSQSQRFTYTPV
LMKQEHREEIDLSSVPSLPVPHPAQTQRPSSDSGCSHDSVLSGQRSLICSIPTYASMTSSHLPLQLQCR
DESVSKEQHMIPSPIVHQPFQVTPTPPVGSSYQPMQTNVYNGPTCLPINAASSQEFDSVLFQQDATLSG
LVNLGCQPLSSIPFHSSNSGSTGHLLAHTPHSVHTLPHLQSMGYHCSNTGQRSLSSPVADQITGQSSQL
QPITYGPHSHSGSATTASPAASHPLASSPLSGPPSPQLQPMYPYQSPSSGTASSPSPATRMHSGQHSTQAQS
TGQGLSAPSSLICHSLCDPASFPDGTATVSIKPEPEDREPNFATIGLQDITLDDDLFTSNFDDLQLRP
TFWPVPAGRYLRNLE
```

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_173163

**ORF Size:** 3195 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.

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>                | <u><a href="#">NM_173163.3</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>RefSeq Size:</b>           | 6438 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RefSeq ORF:</b>            | 3198 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Locus ID:</b>              | 4775                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>UniProt ID:</b>            | <u><a href="#">Q12968</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Cytogenetics:</b>          | 16q22.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Protein Families:</b>      | Druggable Genome, Transcription Factors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Protein Pathways:</b>      | Axon guidance, B cell receptor signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Gene Summary:</b>          | The product of this gene is a member of the nuclear factors 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. Other members of this family participate to form this complex also. The product of this gene plays a role in the regulation of gene expression in T cells and immature thymocytes. Several transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Nov 2010] |