

## Product datasheet for **MG226476**

### **Tnfaip3 (NM\_001166402) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Tnfaip3 (NM_001166402) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tnfaip3
Synonyms:	A20; Tnfip3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>MG226476 representing NM\_001166402  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGACAAGATCAAATACTGGGGTTTCCTGCCAGCAGGTATATGGGAGCAGTGTTAAAGGCAGCCTAACGG  
AATGGGCTTTACCCCTTCTCTTCAGGCCCTTGTGAGGACCATGGCTGAACAACCTTCTCCCTCAGGCTTT  
GTATTTGAGCAATATGCGGAAAGCTGTGAAGATACGAGAGAGAACCCAGAAACATTTTCAAACCTACC  
AATGGGATCATCTATCACTTTAAAACATGCACCGATACACGCTGGAGATGTTTCAAGACATGCCAGTTTT  
GCCACAGTTCGAGAGATCATCCAAAAGCACTTATTGACAGAAGTGTCCAGGCTTCCCTGGAAAGCCA  
GAAGAAGCTCAACTGGTGTGCGTGAAGTCAAGGAGCTCGTGGCTCTGAAAACCAATGGTGTGAAACTGC  
CTCATGCATGCAGCTTGTGAGTACATGTGGGTGTTTCAAGACTGACCTGGTCTGAGGAAGGCCCTCT  
GCAGCACCTTAAGGAGACAGACTCGGAACCTTAAATTCGCTGGCAGCTGGAATCTCTGAAATCTCA  
GGAATTTGTGAAACAGGACTTTGCTACGACACTCGGAACCTGGAATGACGAATGGGACAACCTTGGTCAA  
ATGGCATCAGCAGACACACTGCAGCCGAAGTGGACTTCAGTACAATCCCTGGAGAAATCCACATAT  
TTGTCCTCAGCAACATCCTCAGAAGACCCATCATTGTCATTTAGACAAAATGCTAAGAAGTTTGGAAATC  
TGGTTCCAATTTTGTCTCTTTGAAAGTGGGTGGGATTTATCTGCCTTCTCACTGGCTGCCAGGAGTGT  
TACAGATATCCCATCGTCTTAGGCTATGACAGCCAGCACTTTGTACCCCTGGTGACCCTGAAGGACAGTG  
GACCTGAACCTTCGCGCTGTTCCACTTGTAAACAGAGACCGGGTAGGTTTGAAGACTTAAAGTTCACTT  
CTTGACAGATCCTGAGATGAGATGAAGAAAAGCTTCTAAAGGAGTACTTGATAGTGATGGAGATCCCT  
GTGCAAGGCTGGGACCAGGCACGACTCACCTGATCAACGCTGCAAAATGGATGAAGCTAACTTACCCA  
AAGAAAATAAATTTGGTAGACGATTACTTTGAGCTTGTTCAGCAGAAATACAAGAAATGGCAGGAGAAC  
CGATCAGGCCAGGAGAGCGGCACATGCGCAGAACCCTTGGAGCCTTCCACACCCAGCTATCACTCATG  
GATATAAATGTGAGACACCAACTGTCCTTTCTCATGTCCGTGAACACTCAGCCTTTATGCCACGAAT  
GCTCAGAGAGGCGCCAAAAGAATCAGAGCAAGCTCCCAAAGCTGAACTCGAAGCTAGGCCCTGAAGGACT  
CCCAGGCGTGGGACTTGGCTCCTCAAACCTGGAGCCCCGAGGAAACCGCTGGAGGACCTCATTAGCCCA  
CCCACAGCACCCAGCCTTTTCTCTTCACTGAGACCACTGCAATGAAGTGCAGGAGTCTGGGTGCCCTT  
TACTTTGAATGTGCAGCATAATGGATTCTGTGAGCGTTGCCACGCCCGGAGATTAATGCCAGCCACAC  
CGCAGACCCTGGAAGTGCCAAGCCTGCCTTCAAGATGTCACCTCGGACCTTAATGGCATCTGCAGTACC  
TGTTTCAAAGGACTACAGCAGAGCCAGCTCCAGCCTCACTTCCAGTATCCCTGCCTCCTGTACCAAC  
GCTCCAAGTCTGACCCCTCACAACCTCATCAAAGTCTCACTCCACTCTTGCCACCGGACTGGAATGT  
CTCTCCTTCTGGCTGCCTCTCCCAGGCTGCACGGACTCCAGGAGACAGAGCAGGGACAAGCAAGTGCAGG  
AAAGCTGGCTGCATGTATTTGGGACTCCAGAAAACAAGGGCTTTTGCACCTATGTTTCATCGAATACA  
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CCCGTGCCTGGGAGGAGTGGGCACACTCGGAAGCACCATGTTTGAAGGACTGTGAGAAAGTGTTC  
ATCGAAGCTCAGAACCAGAGATTCATGAAGCAAGAAGAACGGAAGAAGCAGCTGAGATCAAGCCAGCATA  
GAGACATGCCTCGAACTACACAGGTAGCCTCAAGGCTGAAATGTGCCGGGCCCTCCTGCAAGAACATTCT  
GGCCTGTGCAAGTGAAGAACTCTGTATGGAGTCCAGCACCTAAGCCAACGAGTAGGTTCTGTGGCCAC  
CGGGGTGAGCCCACGCTGAAGAGCCCCCTAAACAGCGCTGCCGGGCCCTGCTTGTGATCACTTTGGCA  
ATGCCAAGTGAATGTTACTGCAATGAGTGTACCAGTCAAGCAGATGTATGGC

**ACCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG226476 representing NM\_001166402  
Red=Cloning site Green=Tags(s)

MTRSNTGVSCQQVYGSSVKGSLTEWALPLPLQALSRTMAEQLLPQALYLSNMRKAVKIRERTPEDIFKPT  
NGIYHFKTMHRYTLEMFRTCQFCPQFREIIHKALIDRSVQASLESQKKNWCREVRLVALKTNGDGNC  
LMHAACQYMWGVQDLDLVRKALCSTLKETDTRNFKFRWQLESLSQEFVETGLCYDTRNWNDEWDNLVK  
MASADTPAARSLQYNSLEEEIHIFVLSNILRRPIIVIISDKMLRSLESGSNFAPLKVGGIYPLHWPQEC  
YRYPIVLGYDSQHFVPLVTLKDSGPELRAVPLVNRDRGRFEDLKVFHFLDTPENEMKEKLLKEYLIVMEIP  
VQGDHGTTHLINAACLDEANLPKEINLVDDYFELVQHEYKQWQENSQARRAAHAQNPLEPSTPQLSLM  
DIKCETPNCPFFMSVNTQPLCHECSERRQKNQSKLPKLNKLGPEGLPGVGLGSSNWSPEETAGGPHSAP  
PTAPSLFLFSETTAMKCRSPGCPFTLNQVHNGFCERCHARQINASHTADPGKCQACLQDVTRTFNGICST  
CFKRTTAEPSSSLTSSIPASCHQRSKSDPSQLIQSLTPHSCHRTGNVSPSGCLSQAARTPGDRAGTSKCR  
KAGCMYFGTPENKGFCTLCFIEYRENKQSVTASEKAGSPAPRFQNNVPCLGREGTLGSTMFEQYQKCF  
IEAQNRQFHEARRTEEQLRSSQHRDMPRTTQVASRLKCARASCKNILACRSEELCMQCQHLQRVGSVAH  
RGEPTPEEPPKQRCRAPACDHFNAKCNQYQFKQMYG

TRTRPLE - GFP Tag - V

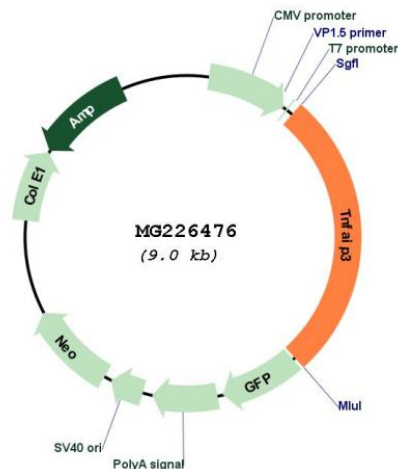
**Restriction Sites:** Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_001166402

ORF Size: 2436 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\\_001166402.1](#), [NP\\_001159874.1](#)

RefSeq Size: 4352 bp

RefSeq ORF: 2439 bp

Locus ID: 21929

Cytogenetics: 10 8.08 cM

**Gene Summary:** Ubiquitin-editing enzyme that contains both ubiquitin ligase and deubiquitinase activities. Involved in immune and inflammatory responses signaled by cytokines, such as TNF-alpha and IL-1 beta, or pathogens via Toll-like receptors (TLRs) through terminating NF-kappa-B activity. Essential component of a ubiquitin-editing protein complex, comprising also RNF11, ITCH and TAX1BP1, that ensures the transient nature of inflammatory signaling pathways. In cooperation with TAX1BP1 promotes disassembly of E2-E3 ubiquitin protein ligase complexes in IL-1R and TNFR-1 pathways; affected are at least E3 ligases TRAF6, TRAF2 and BIRC2, and E2 ubiquitin-conjugating enzymes UBE2N and UBE2D3. In cooperation with TAX1BP1 promotes ubiquitination of UBE2N and proteasomal degradation of UBE2N and UBE2D3. Upon TNF stimulation, deubiquitinates 'Lys-63'-polyubiquitin chains on RIPK1 and catalyzes the formation of 'Lys-48'-polyubiquitin chains. This leads to RIPK1 proteasomal degradation and consequently termination of the TNF- or LPS-mediated activation of NF-kappa-B. Deubiquitinates TRAF6 probably acting on 'Lys-63'-linked polyubiquitin. Upon T-cell receptor (TCR)-mediated T-cell activation, deubiquitinates 'Lys-63'-polyubiquitin chains on MALT1 thereby mediating disassociation of the CBM (CARD11:BCL10:MALT1) and IKK complexes and preventing sustained IKK activation. Deubiquitinates NEMO/IKBKG; the function is facilitated by TNIP1 and leads to inhibition of NF-kappa-B activation. Upon stimulation by bacterial peptidoglycans, probably deubiquitinates RIPK2. Can also inhibit I-kappa-B-kinase (IKK) through a non-catalytic mechanism which involves polyubiquitin; polyubiquitin promotes association with IKBKG and prevents IKK MAP3K7-mediated phosphorylation. Targets TRAF2 for lysosomal degradation. In vitro able to deubiquitinate 'Lys-11-', 'Lys-48'- and 'Lys-63' polyubiquitin chains. Inhibitor of programmed cell death. Has a role in the function of the lymphoid system. Required for LPS-induced production of proinflammatory cytokines and IFN beta in LPS-tolerized macrophages.[UniProtKB/Swiss-Prot Function]