

## Product datasheet for **RG220153**

### **GIT1 (NM\_014030) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GIT1 (NM_014030) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GIT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG220153 representing NM\_014030  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCCCGAAAGGGGCCGAGCGGAGGTGTGTGCGGACTGCAGCGCCCCGGACCCTGGCTGGGCATCCA  
TCAGCAGGGTGTGCTGGTGTGTGACGAGTGTGCAGCGTGCACCGGAGCCTGGGACGCCACATCTCCAT  
TGCAAGCACCTTCGCCACAGCGCTGGCCTCCCACGCTGCTGCAGATGGTGCACACGCTTGCCAGCAAC  
GGGGCCAACTCCATCTGGGAGCACTCCCTGCTGGACCCCGCACAAAGTGCAGAGCGCCGCGTAAAGCCA  
ACCCCCAAGACAAAGTCCACCCCATCAAGTCAGAGTTCATCAGGGCCAAGTACCAGATGCTGGCATTGT  
GCACAAGCTTCCCTGCCGGGACGATGATGGAGTCAACGCCAAAGACCTCAGCAAGCAACTACACTCGAGC  
GTGCGGACAGGCAACCTGGAGACATGTCTGCGCTGCTCTCCCTGGGTGCCAGGCCAACTTCTCCACC  
CAGAGAAGGGCACACACCTCTGCACGTGGCTGCCAAGGCAGGACAGACACTGCAGGCCGAGCTGCTTGT  
AGTGTATGGGGTGCACCCTGGCTCCCCTGATGTTAATGGCCGCACACCCATTGACTATGCCAGGCAGGGC  
GGGCACCATGAGCTGGCGAAAGGCTGGTTGAGTGCCAATATGAGCTCACTGACCGGCTGGCCTTCTACC  
TCTGTGGACGCAAGCCGATCACAAGAATGGGCATTACATCATCCCACAGATGGCTGACAGCCTTGACTT  
ATCCGAATTGGCCAAAGCTGCTAAGAAGAAGCTGCAGGCGCTCAGCAACCGGCTTTTTGAGGAACTCGCC  
ATGGACGTGTATGACGAGGTGGATCGAAGAGAAAATGATGCAGTGTGGCTGGCTACCCAAAACCACAGCA  
CTCTGGTGACAGAGCGCAGTGGCGTGCCCTTCTGCTGTTAACCCGGAATACTCAGCCACGCGGAATCA  
GGGGCGACAAAAGCTGGCCCGCTTAAATGCCCGAGAGTTGCCACCTTGATCATCGACATTCTCAGTGAG  
GCCAAGCGGAGACAGCAGGGCAAGAGCCTGAGCAGCCCCACAGACAACCTCGAGCTGTCTCTGCGGAGCC  
AGAGTGACCTCGACGACCAACACGACTACGACAGCGTGGCCTCTGACGAGGACACAGACCAGGAGCCCT  
GCGCAGCACCGGCGCCACTCGGAGCAACCGGGCCCGGAGCATGGACTCCTCGGACTTGTCTGACGGGCT  
GTGACGCTGCAGGAGTACCTGGAGCTGAAGAAGGCCCTGGCTACATCGGAGGCAAAGGTGCAGCAGCTCA  
TGAAGGTCAACAGTAGCCTGAGCGACGAGCTCCGGAGGCTGCAGCGAGAGATCCACAAGTGCAGGCGGA  
GAACCTGCAGCTCCGGCAGCCTCCAGGGCCGGTGCCACACCTCCACTCCCCAGTGAACGGGCGGAACAC  
ACACCCATGGCGCCAGGCGGGAGCACACACCGCAGGGATCGCCAGGCCTTTCCATGTATGAACCTGGCT  
CTGCCCTGAAGCCCTTTGGGGGCCCCCTGGGGACGAGCTCACTACGCGGCTGCAGCCTTCCACAGCAC  
TGAGCTAGAGGACGACGCCATCTATTCAAGTGCACGTCCCTGCTGGCCTTACCGGATCCGGAAAGGGGTG  
TCTGCCTCAGCTGTGCCCTTCACTCCCTCCTCCCGCTGCTGTCTGCTCCAGGAGGGAAGCCGCCACA  
CGAGCAAGCTTTCCCGCCACGGCAGTGGAGCCGACAGTACTATGAGAACACGCAAAGTGGGGACCCACT  
GCTGGGGCTGGAAGGGAAGAGGTTTCTAGAGCTGGGCAAAGAGGAAGACTTCCACCCAGAGCTGGAAGC  
CTGGATGGAGACCTAGATCCTGGGCTTCCAGCACAGAGGATGTCATCTTGAAGACAGAGCAGGTACCA  
AGAACATTCAGGAACTGTTGCGGGCAGCCAGGAGTTCAGCATTGACAGCTTCGTGCCCTGCTCAGAGAA  
GATCCATTTGGCTGTGACCGAGATGGCCTCCCTTCCCAAGAGGCCAGCCCTGGAGCCAGTGGCGGAGC  
TCACTGCGGCTGCTCAACGCCAGCGCCTACCGGCTGCAGAGTGAGTGCCGGAAGACAGTGCCCCCAGAGC  
CCGGCGCCCCAGTGGACTTCCAGCTGCTGACTCAGCAGGTGATCCAGTGGCCTATGACATCGCCAAGGC  
TGCCAAGCAGCTGGTCACCATCACACCCGAGAGAAGAAGCAG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG220153 representing NM\_014030  
 Red=Cloning site Green=Tags(s)

```
MSRKGPRAEVCDACSAPDPGWASISRGVLVCECCSVHRSLGRHISIVKHLRHSAPPTLLQMVHTLASN
GANSIWEHSLLDPAQVQSGRRKANPQDKVHPKSEFIRAKYQMLAFVHKLPCRDDDGVTAKDLSKQLHSS
VRTGNLETCLRLLSLGAQANFFHPEKGTTPHVAAGQTLQAELLVYVYADPGSPDVNGRTPIDYARQA
GHHELAERLVECYELTDRLAFYLCGRKPDHKNHGYIIPQMADSLDLSELAKAAKKLLQALSNRLEELA
MDVYDEVDRREDAVWLATQNHSTLVTERSAPVFLPVNPEYSATRNQGRQKLARFNAREFATLIIDILSE
AKRRQQGKSLSSPTDNLELRLRSQSDLDQHDYDYSVASDEDDTQEPLRSTGATRSNRARMSDSSDSDGA
VTLQEYLELKKALATSEAKVQQLMKVNSLDELRLRQREIHKLQAENLQRQPPGPVPTPLPSEAEH
TPMAPGGSTHRRDRQAFSMYEPGSALKPFGGPPGDEL TTRLQPFHSTELEDDAIYSVHVPAGLYRIRKGV
SASAVPFTPSSPLLSCSQEGSRHTSKLSRHGSGADSDYENTQSGDPLLGLEGKRFLELGKEEDFHPELES
LDGDLDPGLPSTEDVILKTEQVTKNIQELLRAAQEFKHDSFVPCSEKIHAVTEMASLFPKRALPEPVRS
SLRLLNASAYRLQSECRKTVPEPGAPVDFQLLTQQVIQCAVDIAKAAKQLVTITREKKQ
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**ACCN:** NM\_014030

**ORF Size:** 2283 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\\_014030.4](#)

**RefSeq Size:** 3758 bp

**RefSeq ORF:** 2286 bp

**Locus ID:** 28964

**UniProt ID:** [Q9Y2X7](#)

**Cytogenetics:** 17q11.2

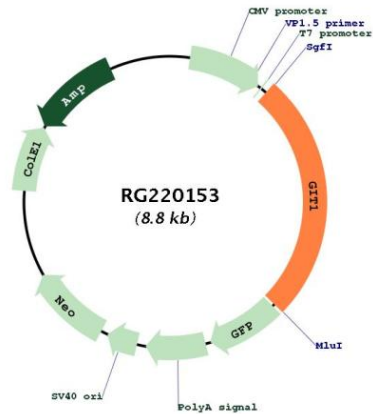
**Domains:** ArfGap, ANK, GIT

**Protein Families:** Druggable Genome

**Protein Pathways:** Endocytosis, Epithelial cell signaling in Helicobacter pylori infection, Regulation of actin cytoskeleton

**Gene Summary:**

GTPase-activating protein for the ADP ribosylation factor family. May serve as a scaffold to bring together molecules to form signaling modules controlling vesicle trafficking, adhesion and cytoskeletal organization. Increases the speed of cell migration, as well as the size and rate of formation of protrusions, possibly by targeting PAK1 to adhesions and the leading edge of lamellipodia. Sequesters inactive non-tyrosine-phosphorylated paxillin in cytoplasmic complexes. Involved in the regulation of cytokinesis; the function may involve ENTR1 and PTPN13 (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for RG220153