

## Product datasheet for **RG213361**

### **GGA3 (NM\_138619) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GGA3 (NM_138619) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GGA3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG213361 representing NM\_138619  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCGGAGGCGGAAGGGAAAGCCTGGAGTCCTGGCTCAATAAAGCCACCAATCCTTCCAACGCCAGG  
 AGGACTGGGAATACATAATTGGCTTCTGTGATCAGATCAACAAGGAGCTGGAAGGGCCACAGATCGCCGT  
 CCGACTGCTGGCCACAAGATCCAGTCCCCACAGGAATGGGAGGCGCTCCAGGCCCTGACGGTGCTGGAG  
 GCATGCATGAAGAACTGTGGGAGGAGATTTATAACGAAGTGGGGAAGTCCGCTTTTTGAATGAGTTAA  
 TCAAAGTCGTCTCTCAAAGTACCTGGGGGACAGGGTGTCTGAGAAAGTGAAGACCAAGTTATTGAGCT  
 GCTGTACAGCTGGACCATGGCCCTGCCAGAAGAAGCAAAGATCAAAGACGCCTACCACATGCTGAAGAGA  
 CAGGGCATAGTGCAGTCTGACCCACCAATTCCTGTGGATAGGACGCTGATCCCCTCTCCACCACCTCGTC  
 CCAAAAACCTGTTTTGATGATGAGGAGAAGTCCAAGCTTTAGCCAAGCTGCTGAAAAGCAAAAACCC  
 AGATGACCTGCAGGAGGCCAACAAGCTCATCAAGTCCATGGTGAAGGAAGACGAGGCACGGATCCAGAAG  
 GTGACCAAGCGTCTGCACACGTTAGAGGAAGTTAACAACAACGTGAGACTGCTCAGTGAGATGCTGCTTC  
 ATTACAGCCAGGAGGACTCTTCGGACGGGGACAGAGAGCTGATGAAGGAGCTGTTTGATCAGTGAGAA  
 CAAGAGGCGGACTTTATTTAAACTCGCCAGTGAGACTGAGGACAAATGATAACAGTTTGGGGGACATCCTG  
 CAAGCCAGTGACAACCTCTCCCGGGTCACTCAACTTTACAAAACAATTATTGAAGGGCAGGTCATCAATG  
 GCGAGGTGGTACCTTAACCTCGCTGACTCGGAAGGAAACAGTCAGTGCAGTAACCAAGGCACGCTCAT  
 CGACCTTGGGAGCTGGACACGACCAACAGTTTGTCTCCGTGTTGGCCCCAGCACCTACTCCACCCTCC  
 TCAGGCATCCCAATCCTCCCTCCACCACCCAGGCCTCAGGACCTCCACGGAGCCGCTCCTCTAGCCAGG  
 CCGAGGCCACCCTGGGGCCAGCAGCACAAAGCAACGCCCTCTCCTGGCTGGACGAGGAGCTACTCTGCTT  
 GGGCCTCGCCGACCCAGCCCTAATGTTCTCCAAAGAGTCAGCTGGGAACAGCCAGTGGCACCTGCTC  
 CAGAGGGAACAGTCCGACCTGGACTTCTCAGCCCCAGGCCGGGGACCGCTGCCTGTGGCCTCCGATG  
 CTCTCTGCTCCAGCCCTCAGCCCCCTCTCAAGCAGCTCCCAAGCTCCACTGCCGCTCCCTTCCAGC  
 TCCTGTGGTCCAGCCAGTGTCTGCCCCAGTGCAGGCTCCTCCTGTTTTCTACTGGAGTGGCCCCA  
 GCCTTGGCCCCAAAAGTTGAGCCCGCAGTCCCTGGGCACCATGGCTTGGCGTTGGGCAACAGCGCTGC  
 ACCACCTGGATGCCCTCGATCAGCTTCTAGAAGAGGCCAAAGTGACCTCGGGCTTGGTGAACCCACTAC  
 CTCCCCTCTCATCCCACCACCACCCAGCCAGGCCCTCCTGCCCTTCTCCACGGGGCCCGGCAGCCCG  
 CTCTCCAGCCACTGAGTTTCCAGTCCCAGGGCAGCCCCCGAAGGGCCTGAGCTCTCCTGGCCAGCA  
 TCACAGTCCCCCTGGAATCGATCAAGCCTAGCAGTGCCCTTCTGTGACAGCCTACGATAAAAACGGCTT  
 CCGCATCCTTCCACTTTGCCAAGGAGTGTCCCCAGGACGACCTGACGTGCTGGTGGTGGTGGTGC  
 ATGCTGAACACGGCTCCCTTACCTGTCAAGAGCATCGTGTGCAGGCTGCAGTGCCCAAGTCAATGAAA  
 TGAAGTTGCAGCCACCTTCTGGGACAGAACTCTCTCAATTTAGCCCCATCCAGCCACCTGCAGCCATCAC  
 CCAGGTGATGTTGCTGGCAATCCACTGAAGGAGAAGGTGCGGCTTCGGTATAAGCTGACCTTCGCCCTG  
 GGGGAGCAGCTGAGCACAGAGGTGGGCGAGGTGGACCAGTCCCTCCTGTGGAACAGTGGGGAACCTA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - **GTTTAA**

**Protein Sequence:** >RG213361 representing NM\_138619  
 Red=Cloning site Green=Tags(s)

MAEAEGESLESWLNKATNPSNRQEDWEYIIGFCDQINKELEGPQIAVRLLAHKIQSPQEWELQALTVLE  
 ACMKNCGRRFHNEVGKFRFLNELIKVVSPKYLGDRVSEKVKTKVIELLYSWTMALPEEAKIKDAYHMLKR  
 QGIVQSDPPPIPVDRTLIPSPPPRPKNPVFDDEEKSKLLAKLLKSKNPDDLQEANKLIKSMVKEDEARIQK  
 VTKRLHTLEEVENNVRLLEMLLHYSQEDSSDGDRELMKELFDQCENKRRTLFKLASETEDNDNSLGDIL  
 QASDNL SRVINSYKTIIEGQVINGEVATLTL PDSEGNSQCSNQGTLIDLAE LDTTNSLSSVLAPAPTPPS  
 SGIPILPPPQASGPPRSRSSSQAEATLGPSSSNALS WLDEELLCLGLADPAPNVPPKESAGNSQWHLL  
 QREQSDLDFSPRPGTAAACGASDAPLLQPSAPSSSSSQAPLPPFPAPVVPASVPAPSAGSSLFSTGVAP  
 ALAPKVEPAVPGHHGLALGNSALHHLDALDQLLEEAKVTSGLVKPTTSPLIPTTTTPARLLPFSTGPGSP  
 LFQPLSFQSQSGPPKGPESLASIHVPLESIKPSALPVTAYDKNGFRILFHFAKECPPGRPDV L VVVVS  
 MLN TAPLPVKSI VLQA AVPKSMVKLQPPSGTE LSPFSP IQPPAAITQVMLLANPLKEKVR LRYK LTFAL  
 GEQLSTEVGEVDQFPPVEQWGNL

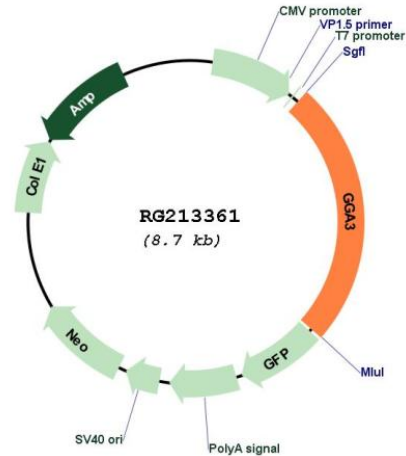
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_138619

**ORF Size:** 2169 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\\_138619.4](#)

**RefSeq Size:** 3860 bp

RefSeq ORF: 2172 bp

Locus ID: 23163

UniProt ID: [Q9NZ52](#)

Cytogenetics: 17q25.1

Protein Families: Druggable Genome

Protein Pathways: Lysosome

**Gene Summary:** This gene encodes a member of the Golgi-localized, gamma adaptin ear-containing, ARF-binding (GGA) family. This family includes ubiquitous coat proteins that regulate the trafficking of proteins between the trans-Golgi network and the lysosome. These proteins share an amino-terminal VHS domain which mediates sorting of the mannose 6-phosphate receptors at the trans-Golgi network. They also contain a carboxy-terminal region with homology to the ear domain of gamma-adaptins. Multiple alternatively spliced transcript variants have been identified in this gene. [provided by RefSeq, Feb 2010]