

## Product datasheet for **MG208917**

### **Guf1 (BC057962) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Guf1 (BC057962) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Guf1
Synonyms:	4631409J12; AA407526; EF-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208917 representing BC057962  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGGGCGCTCGTGGGCGGGCTCTCGCGCCGTGGGCCGCCGGGCCCGGCACGCGGCTGCCTCGGAGC  
 CCAGGGCCGCCTGCAGGCTCTTCAGCGCGGCCGAGCTCAAGGAGAAACCTGACATGTCTAGATTTCTGT  
 TGAAGACATTAGAAATTTCAAGTATCATTGCACATGTGGATCATGGCAAAAGCACTTTAGCTGACAGGCTC  
 CTGGAGCTAACAGGAACAATTGATAAGACGAAGAAAAACAAGCAGGTTCTTGATAAATTACAAGTAGAAC  
 GAGAAAGAGGAATCACTGTGAAGGCGCAGACAGCCTCTCTGTTTTACAGCTTTGGAGGAAAACAGTACCT  
 TTTAAACCTCATCGACACACCAGGCCACGTTGATTTTAGTTATGAAGTGTCCAGGTCAGTGTCTGCATGC  
 CAAGGTGTTTTACTGGTAGTGGATGCAATGAGGGTATCAAGCTCAAACGTGGCCAACCTCTTCCTTG  
 CTTTTGAAGCACAGCTGCAGTAATCCAGTTATCAATAAGATAGATCTGAAGAATGCTGACCCTGAAAG  
 GGTGGGAAAGCAGATTGAAAAAGTATTTGATATCCCTAGTGAGGAGTGATTAAGATTTCTGCGAAACTT  
 GGACAAAACGTTGACAGTGTGCTTCAGGCACTTGAACGAATACCTCCTCCAAAAGTCCATCGTGAAA  
 ACCCACTGAAAAGCTTTGGTATTTGACTCCACCTTTGACCAGTACAGAGGGGTGATAGCCAATATAGCACT  
 GTTTGATGGAGTGGTTTCCAAGGGAGATAAAATTTGTATCTGCACATACTAAAAAGCATATGAAGTCAAT  
 GAAGTAGGCATTTTGAATCCTAATGAACAGCCAACCTATAAATTTGTTGGGTTTCTTGGACTTTTACATA  
 TGGAGTTTTCAACCAGCGATTAGAGCAAGAATAAACGTTCTGTCAATTTGACAACCCCAACTGTTCC  
 ATACAAAGCTGTTCTTCTCTGCAAAATTAATAAAGGAATAAAAGAGAAGGAGATCACAATCATCAAC  
 CCTGCACAGTCCCTGAGAAGTCCCAAGTAACAGAATATTTGAACTGTTGTTTTGGCCACTGTTATTA  
 CACCGACTGAGTACACTGAAAAATAATGGCGCTTTGTCAAGCAGCAAGAGCAATTCAGAAAAATGAC  
 TTTTATTGATGAAAATAGAGTTATGCTTAAATATCTCTTCCCTTTGAATGAAATTTGGTAGATTTTAT  
 GACTCTTTGAAGTCTCTCTCTTCTGGATATGCAAGTTTTGATTATGAAGTGCCGTTACCAGACTGCAG  
 AACTCGTTAAAATGGATATTCTGCTGAATGAAAATATGGTGAAGAGCTTGAACGTGGTCCATAGAGA  
 GAAAGCCTACACTGTTGGCAAAAGCATATGTGAACGCCTGAAGGAGTCTTCCCAGACAACTGTATGAG  
 ATAGCAATTCAGCTGCTGTTGGGAGCAAAGTTATTGCAAGAGAAACAGTGAAGCCTACAGAAAAATG  
 TTTTGGCAAAATGTTATGGTGGTATATACCCGGAAAATGAACTTCTGAAGAGACAGTCCGAAGGGAA  
 AAAGAAGCTGAGGAAGATTGGCAACATTGAGATCCAAAAGACGCTTTCATAAAAGTCTGAAAACCCAG  
 CCTAATAAA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG208917 representing BC057962  
 Red=Cloning site Green=Tags(s)

MWALVGRALAPWAAGARHAAASEPRAACRLFSAELKEKPDMSRFPVEDIRNFSIIAHVDHGKSTLADRL  
 LELTGTIDKTKKNKQVLDKLQVERERGITVKAQTASLFYSFGGKQYLLNLDTPGHVDFSYEVSRLSAC  
 QGVLLVVDANEGIQAVTANFFLAFAEQLSVIPVINKIDLKNADPERVKGQIEKVFIPSEECIKISAKL  
 GTNVDSVLQAVIERIPPKVHRENPLKALVFDSTFDQYRGVIANIALFDGVVSKGDKIVSAHTKKAYEVN  
 EVGILNPNEQPTHKLLGFLGLLHMEVFNRLEQEYNASVILTTPTVPYKAVLSSAKLIKEYKEKEITIIIN  
 PAQFPEKSQVTEYLEPVVLTGVTITPTEYTGKIMALCQARRAIQKNMTFIDENRVMLKYLFPNEIVVDFY  
 DSLKSLSSGYASFYEDAGYQTAELVKMDILLNGNMVEELVTVVHREKAYTVGKSI CERLKE SLPRQLYE  
 IAIQAAVGSKVIARETVKAYRKNVLAKCYGGDITRKMKLLKRQSEGKKLRKIGNIEIPKDAFIKVLKTQ  
 PNK

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** BC057962

**ORF Size:** 1689 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:** [BC057962.1](#)

**RefSeq Size:** 1794 bp

**RefSeq ORF:** 1691 bp

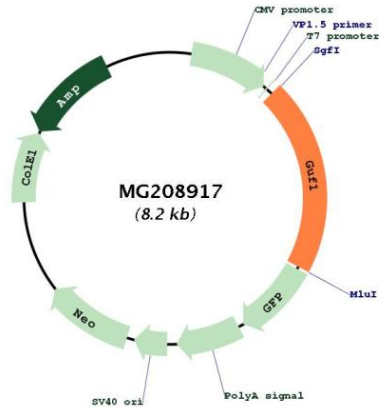
**Locus ID:** 231279

**Cytogenetics:** 5 C3.1

**Gene Summary:**

Promotes mitochondrial protein synthesis. May act as a fidelity factor of the translation reaction, by catalyzing a one-codon backward translocation of tRNAs on improperly translocated ribosomes. Binds to mitochondrial ribosomes in a GTP-dependent manner. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG208917