

## Product datasheet for **MR208917**

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

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                    |
| Product Name:             | Guf1 (BC057962) Mouse Tagged ORF Clone |
| Tag:                      | Myc-DDK                                |
| Symbol:                   | Guf1                                   |
| Synonyms:                 | 4631409J12; AA407526; EF-4             |
| Mammalian Cell Selection: | Neomycin                               |
| Vector:                   | pCMV6-Entry (PS100001)                 |
| E. coli Selection:        | Kanamycin (25 ug/mL)                   |



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**ORF Nucleotide Sequence:**

>MR208917 representing BC057962  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGGGCGCTCGTGGGCGGGCTCTCGCGCCGTGGGCCGCCGGGCCCGGCACGCGGCTGCCTCGGAGC  
 CCAGGGCCGCCTGCAGGCTCTTCAGCGCGGCCGAGCTCAAGGAGAAACCTGACATGTCTAGATTTCTGT  
 TGAAGACATTAGAAATTTCAAGTATCATTGCACATGTGGATCATGGCAAAAGCACTTTAGCTGACAGGCTC  
 CTGGAGCTAACAGGAACAATTGATAAGACGAAGAAAAACAAGCAGGTTCTTGATAAATTACAAGTAGAAC  
 GAGAAAGAGGAATCACTGTGAAGGCGCAGACAGCCTCTCTGTTTTACAGCTTTGGAGGAAAACAGTACCT  
 TTTAAACCTCATCGACACACCAGGCCACGTTGATTTTAGTTATGAAGTGTCCAGGTCAGTGTCTGCATGC  
 CAAGGTGTTTTACTGGTAGTGGATGCAATGAGGGTATCAAGCTCAAAGTGTGGCCAACTTCTTCCTTG  
 CTTTTGAAGCACAGCTGTCAGTAATCCAGTTATCAATAAGATAGATCTGAAGAATGCTGACCCTGAAAG  
 GGTGGGAAAGCAGATTGAAAAAGTATTTGATATCCCTAGTGAGGAGTGTATTAAGATTTCTGCGAAACTT  
 GGGACAAAACGTTGACAGTGTGCTTCAGGCACTATTGAACGAATACCTCCTCCAAAAGTCCATCGTGAAA  
 ACCCACTGAAAAGCTTTGGTATTTGACTCCACCTTTGACCAGTACAGAGGGGTGATAGCCAATATAGCACT  
 GTTTGATGGAGTGGTTTCCAAGGGAGATAAAATTTGTATCTGCACATACTAAAAAGCATATGAAGTCAAT  
 GAAGTAGGCATTTTGAATCCTAATGAACAGCCAACCTATAAATTTGTTGGGTTTCTTGGACTTTTACATA  
 TGGAGGTTTTCAACCAGCGATTAGAGCAAGAATAAACGTTCTGTCAATTTTACAACCCCAACTGTTCC  
 ATACAAAGCTGTTCTTCTCTGCAAAAATAATAAGGAATAAAAGAGAAGGAGATCACAATCATCAAC  
 CCTGCACAGTCCCTGAGAAGTCCCAAGTAACAGAATATTTGAACTGTTGTTTTGGCCACTGTTATTA  
 CACCGACTGAGTACACTGGAAAAATAATGGCGCTTTGTCAAGCAGCAAGAGCAATTCAGAAAAATGAC  
 TTTTATTGATGAAAATAGAGTTATGCTTAAATATCTTCCCTTTGAATGAAATTTGGTAGATTTTAT  
 GACTCTTTGAAGTCTCTCTCTTCTGGATATGCAAGTTTTGATTATGAAGTGCCTGTTACCAGACTGCAG  
 AACTCGTATAAATGGATATTCTGCTGAATGAAAATATGGTGAAGAGCTTGAAGTGTGGTCCATAGAGA  
 GAAAGCCTACACTGTTGGCAAAAGCATATGTGAACGCCTGAAGGAGTCTTCCAGACAACCTGTATGAG  
 ATAGCAATTCAGCTGCTGTTGGGAGCAAAGTTATTGCAAGAGAAACAGTGAAGCCTACAGAAAAAATG  
 TTTTGGCAAAATGTTATGGTGGTATATACCCGGAAAATGAACTTCTGAAGAGACAGTCCGAAGGGAA  
 AAAGAAGCTGAGGAAGATTGGCAACATTGAGATCCAAAAGACGCTTTCATAAAAGTCTGAAAACCCAG  
 CCTAATAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR208917 representing BC057962  
 Red=Cloning site Green=Tags(s)

MWALVGRALAPWAAGARHAAASEPRAACRLFSAELKEKPDMSRFPVEDIRNFSIIAHVDHGKSTLADRL  
 LELTGTIDKTKKNKQVLDKLQVERERGITVKAQTASLFYSGGKQYLLNLIDTPGHVDFSYEVSRLSAC  
 QGVLLVVDANEGIQAVTANFFLAFAEQLSVIPVINKIDLKNADPERVKGQIEKVFDDIPSEECIKISAKL  
 GTNVDSVLQAVIERIPPKVHRENPLKALVFDSTFDQYRGVIANIALFDGVVSKGDKIVSAHTKKAYEVN  
 EVGILNPNEQPTHKLLGFLGLLHMEVFNQRLEQEYNASVILTTPTVPYKAVLSSAKLIKEYKEKEITII  
 PAQFPEKSQVTEYLEPVVLTGVTIPTTEYTGKIMALCQARRAIQKNMTFIDENRVMLKYLFPNEIVVDFY  
 DSLKSLSSGYASFDYEDAGYQTAELVKMDILLNGNMVEELVTVVHREKAYTVGKSI CERLKE SLPRQLYE  
 IAIQAAVGSKVIARETVKAYRKNVLAKCYGGDITRKMMLLKRQSEGKKLRKIGNIEIPKDAFIKVLKTP  
 PNK

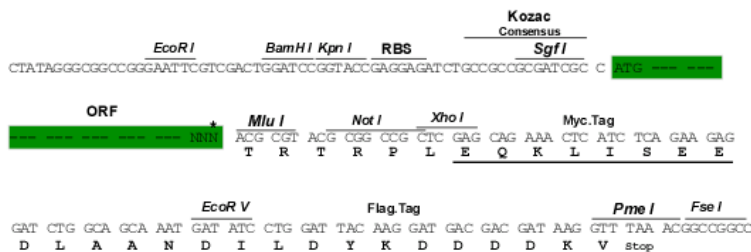
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**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

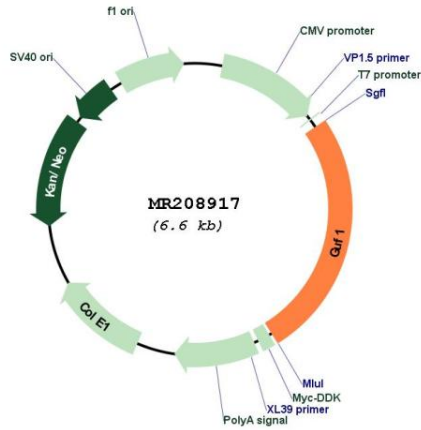
**Cytogenetics:** 5 C3.1

**MW:** 65.8 kDa

**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 MR208917