

## Product datasheet for **RG206315**

### GRPEL2 (NM\_152407) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | GRPEL2 (NM_152407) Human Tagged ORF Clone                                   |
| Tag:                      | TurboGFP  |
| Symbol:                   | GRPEL2  |
| Synonyms:                 | Mt-GrpE#2   |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >RG206315 representing NM_152407<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGTACGGTCGCTGTGGCGGGCCGGCTGCGGGTGCAGCGCCTACTGGCCTGGAGTGCAGCGTGGG  
AGAGCAAGGGATGGCCGCTTCCATTGAGCACTGCCACCCAGAGAACTGCTGGTGAGGACTGCCGTTCTGA  
GGACCCCTCTGATGAGCTTGGGCCCTTCTGCTGAACGAGCCTTAAGGGTAAAAGCTGTTAACTGGAG  
AAAGAAGTCCAAGATTTAACAGTGAGATACCAGAGAGCTATAGCTGATTGTGAAAACATAAGGAGGCGAA  
CCCAGAGATGTGTGGAAGACGCCAAGATATTTGGAATCCAGAGTTCTGTAAAGACTTGGTGGAGGTGGC  
TGACATTTTGGAGAAGACTACAGAGTGCATTTCTGAAGAATCGGAGCCTGAGGACCAAAAGCTCACTCTG  
GAGAAGGTCTTCCGAGGGTTGTTGCTTTTGAAGCAAAGCTGAAAAGTGTGTTTGCCAAGCATGGCCTGG  
AGAAACTGACACCCATTGGTGACAAATATGACCCCATGAGCATGAACTCATCTGTGATGTGCCAGCTGG  
TGTTGGGGTGCAGCCTGGCACCCTGGCATTAGTAAGACAAGATGGGTACAAACTTCATGGCCGACCATT  
AGGCTTGCCCGAGTGGAAGTGCCAGTGGAGTCTCAGAGAAGACTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG206315 representing NM\_152407  
 Red=Cloning site Green=Tags(s)

MAVRSLWAGRLRVQRLLEAWSAAWESKGWPLPFSTATQRTAGEDCRSEDPPDELGPPLAERALRVKAVKLE  
 KEVQDLTVRYQRAIADCENIRRRTRQRCVEDAKIFGIQSFCKDLVEVADILEKTTECISEESEPEDQKLT  
 EKVFRGLLLLEAKLKSVMFAKHGLEKLTPIGDKYDPHEHELICHVPAGVGVQPGTVALVRQDGYKLHGRTI  
 RLARVEVAVESQRRL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_152407

**ORF Size:** 675 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\\_152407.3](#), [NP\\_689620.2](#)

**RefSeq Size:** 4105 bp

**RefSeq ORF:** 678 bp

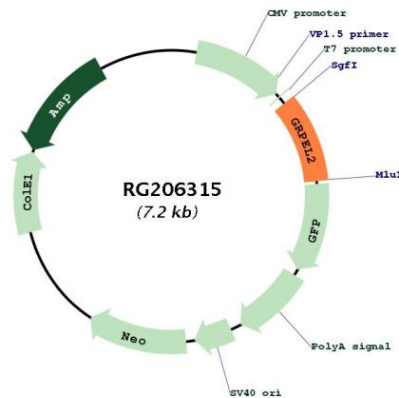
**Locus ID:** 134266

**UniProt ID:** [Q8TAA5](#)

**Cytogenetics:** 5q32

**Gene Summary:** Essential component of the PAM complex, a complex required for the translocation of transit peptide-containing proteins from the inner membrane into the mitochondrial matrix in an ATP-dependent manner. Seems to control the nucleotide-dependent binding of mitochondrial HSP70 to substrate proteins. Stimulates ATPase activity of mt-HSP70. May also serve to modulate the interconversion of oligomeric (inactive) and monomeric (active) forms of mt-HSP70 (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RG206315