

Product datasheet for **MG217444**

Grpel2 (NM_021296) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
 Product Name: Grpel2 (NM_021296) Mouse Tagged ORF Clone
 Tag: TurboGFP
 Symbol: Grpel2
 Synonyms: mt-GrpE#2; mt-Grpel2
 Mammalian Cell Selection: Neomycin
 Vector: pCMV6-AC-GFP (PS100010)
 E. coli Selection: Ampicillin (100 ug/mL)
 ORF Nucleotide Sequence: >MG217444 representing NM_021296
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGCGGTTTCGCTGTGGGCGGTGCAGCGGCTGCAGCGCCTCCTGGCCTCGGGGGCTATGTCAGAGA
 GCAGGGGATGGTCCACCCATTCAGCACTGCCACCCAAAGAACTGCTGGGAAGACTGCAGTTCGAGGA
 CCCTCCTGATGGACTGGACCCCTCCCTTGCTGAGCAGGCCTTAAGGCTCAAAGCTGTTAACTGGAAAAG
 GAAGTCCAGGATTAACCCTGAGATACCAGAGAGCTGTCGCTGATTGTGAAAACATAAGGAGAAGAACC
 AGAGATGTGTGGAAGACGCGAAGATATTTGGGATCCAGAGCTTCTGCAAGGACCTGGTGGAGGTGGCAGA
 CATTTTGGAGAAGACTGCCAAGTCTGTTAGAAAGGGCAGAACCCTGAGGACCACAGGCGCACTCTGGAA
 AAAGTCTTCCAAGGGCTGTCCCTGCTAGAAGCCAGACTGAAAAGCGTATTTACCAAGCATGGCCTAGAGA
 AAATGACACCCATCGGTGACAAATACGACCCTCACGAGCATGAACTCATCTGTCACATGCCAGCAGGTGT
 TGGGGTACAGCCTGGCACCCTGGCATTAGTTCGGCAAGATGGCTACAAACTTCATGGCCGCACCATTAGA
 CTTGCGCAAGTGGAAAGTGGCAGTAGAGTCTCAGAGAAGACTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG217444 representing NM_021296
 Red=Cloning site Green=Tags(s)

MAARSLWAVQRLQRLASGAMSESRGWLHPFSTATQRTAGEDCSSDPPDGLGPSLAEQALRLKAVKLEK
 EVQDLTLRYQRAVADCENIRRRTRQRCVEDAKIFGIQSFCKDLVEVADILEKTAKCCSEGAEPEDHRRRTLE
 KVFQGLSLLEARLKSVFTKHGLEKMTPIGDKYDPHEHELICHMPAGVGVQPGTVALVRQDGYKLGRTIR
 LAQVEVAVESQRRL

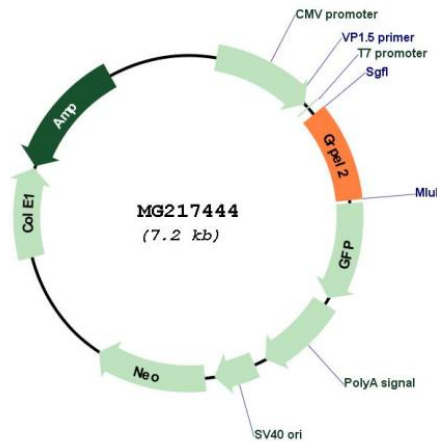
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_021296

ORF Size: 672 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:	<ol style="list-style-type: none">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_021296.2 , NP_067271.1
RefSeq Size:	4065 bp
RefSeq ORF:	675 bp
Locus ID:	17714
UniProt ID:	O88396
Cytogenetics:	18 E1
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.[UniProtKB/Swiss-Prot Function]