

Product datasheet for **MG220572**

Rgr (NM_021340) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rgr (NM_021340) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rgr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG220572 representing NM_021340 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCAACCAGGGCCCTGCCTGCTGGTTTGGGGAACTTGAGGTGCTGGCTGTAGGAACAGTCCTGC
TGATGGAAGCGCTCTCTGGCATCAGCCTCAATGGCCTGACCATCTTCTTTCTGCAAGACTCCAGATCT
GCGGACTCCCAGCAACCTGCTGGTACTGAGCCTGGCCCTGGCAGACACTGGGATCAGCCTGAATGCCCTT
GTTGCAGCGGTATCCAGCCTCCTCCGGCGCTGGCCACATGGTTCAGAGGGCTGCCAGGTTTCATGGTTTCC
AGGGATTTGCAACAGCACTGGCCAGCATCTGTGGCAGTGCAGCCGTTGCCTGGGGACGTTATCACCACCTA
CTGCACCCGAGACAGTTGGCATGGGACACGGCCATCCCTCTGGTCTGTTTGTGTGGATGTCATCTGCC
TTCTGGGCATCCCTGCCCTGATGGGCTGGGGCCACTATGACTATGAGCCTGTGGGGACATGCTGTACAC
TGGACTATTCGAGGGGTGACAGAACTTCATCAGTTTTCTCTTACCATGGCTTTTTTCAACTTCCTCGT
ACCCCTGTTTCATCACACACTTCATACCGTTTCATGGAGCAGAAATTCTCCAGGAGTGGCCATCTCCCG
GTGAATACTACTTTCAGGCAGAAATGCTGCTGCTGGCTGGGGCCCTATGCCCTCCTGTACCTATACG
CAGCCATCGCAGATGTGAGCTTCATCTCTCTAACTACAGATGGTGCCTGCTCTCATCGCCAAAACCAT
GCCACAATCAACGCCATCAACTATGCGTTGCACAGGGAGATGGTCTGTAGAGGAACCTGGCAGTGTCTG
TCTCCACAAAAAAGCAAGAAGGACCGAACCCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG220572 representing NM_021340
 Red=Cloning site Green=Tags(s)

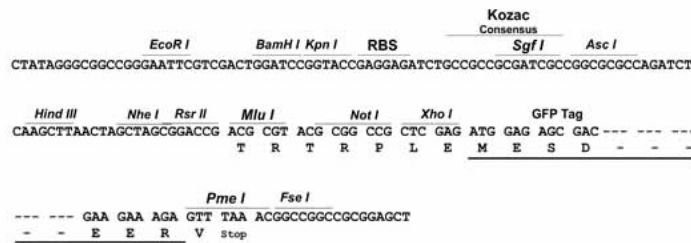
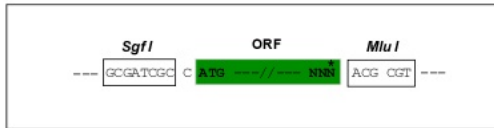
MAATRALPAGLGELEVLAVGTVLLMEALSGISLNLITFSFKTPDLRTPSNLLVLSLALADTGISLNL
 VAAVSSLLRRWPHGSEGCQVHGFGFATALASICGSAVAWGRYHHYCTRRLAWDTAIPLVLFVWMSSA
 FWASLPLMGWGHYDYEYVGTCCCLDYSRGDRNFISFLFTMAFFNPLVPLFITHTSYRFMEQKFSRSGHLP
 VNTTLPGRMLLLWGPYALLYLYAAIADVSFISPKLQMPALIAKTMPTINAINYALHREMVCRGTWQCL
 SPQKSKKDRTQ

TRTRPLE - GFP Tag - V

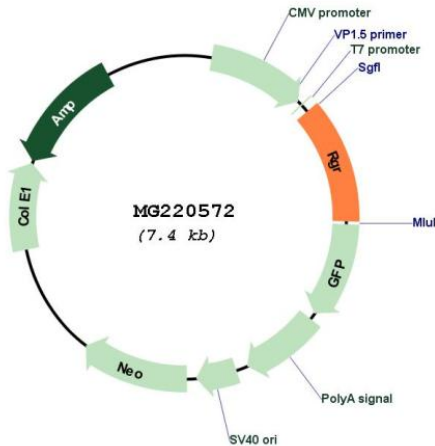
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_021340

ORF Size: 873 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_021340.4](#)

RefSeq Size: 1659 bp

RefSeq ORF: 876 bp

Locus ID: 57811

UniProt ID: [Q9Z2B3](#)

Cytogenetics: 14 B

Gene Summary: The gene is a member of the opsin family of G-protein coupled receptors. The encoded protein is expressed in the retina, and acts as a photoisomerase to catalyze the conversion of all-trans-retinal to 11-cis-retinal. Disruption of a similar gene in human is associated with autosomal recessive (arRP) and autosomal dominant retinitis pigmentosa (adRP). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2014]