

## Product datasheet for **RG224440**

### GUCY2F (NM\_001522) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY2F (NM_001522) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GUCY2F
Synonyms:	CYGF; GC-F; GUC2DL; GUC2F; RETGC-2; ROS-GC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224440 representing NM_001522 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCTGGGACTCGGGCGCTTTTCTCGCCTTGTCTCTGGTTGCGGCTTTCAGGAACTGCTGGGAC  
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GGTGTGGACACTCCCCTACAAGATAGGGGTGGTGGCCCTTGGGCTTGTGATTGCTGTTTTCAAAGGCC  
CTGCCTGAGGTTGCTGCGGATTAGCCATTGAGCGAATCAACCGGACCCATCTTTGACCTGAGTTATT  
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CCAGATGGCCTCAGGATTTATTGGACCTACCAACCCTGGCTACTGCGAGGCAGCCTCGCTCCTGGGAAAC  
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CCTTTTCTCGGACTCCCTTCTCCCATCCGGGTGCTTGTAACTGTCATGAAATATTTCCAGTGGGCTCA  
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AGAGGATTCACCAGGCAGACAGAATTCGCATAATCATCATGTGTATGATTGAGTTTATTGGGGGAGA  
GACTCAGATGCATCTCTTGGAAATGTGCTCATGATCTGAAAATGACTGATGGAACCTACGCTTTTGTCTCT  
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TCCGGGAAGCCTATGATGCAGTGTGACCATACAGTGGAGTCCCAAGAAAAGACCTTCTATCAAGCCTT  
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GGCCCCCTAGAGCAGATGCAAAATGCTGGTTTGCAGAAGGAAGATCTGCCATGGAGGCATCGACCTGCG  
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AGGCGTCGTATAAATAAAATCCAGTTGATCAAAGGACCCAATAGAATTCTACTGACTTTGGAGGATGTAA
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AAAAGCAGAAAGGCAGTTGGTGAGAAACAAGCCA
    
```

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG224440 representing NM\_001522  
 Red=Cloning site Green=Tags(s)

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MFLGLGRFSRLVLFWFAFRKLLGHGHLASAKFLWCLL SVMSLPQQVWTL PYKIGVVGPWACDSLFSKA
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SWDKGIFSWACVNYELDNKISYPTFSRSLPSPIRVLVTVMKYFQWAHAGVISSDEDIWWHTANRVASALR
SHGLPVGVLTTGQDSQSMRKALQRIHQADRIRIIMCMHSALIGGETQMHLLECAHDLKMTDGTGVFVP
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RRRINKIQLIKGPNRILLTLEDVTFINPHFGSKRGRSASVSFQITSEVQSGRSPRLSFSSGLTPATYEN
SNIAIYEGDWWLKKFSLGDFGLKSIKSRASDV FEMMKDLRHENINPLLGFYDSGMFAIVTEFCRSRS
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SEEESSMEELLWTAPELLRAPRGSRLGSFAGDVYSFAIMQEVMVRGTPFCMMDLPAQEINRLKPPPV
YRPVVPPEHAPPECLQLMKQCWAEAAEQRP TFEIFNQFKTFNKGKKTNIIDSMLRMLQYSSNLEDLIR
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DLTYTLFDAIIGSHDVYK VETIGDAYMVASGLPKRNGSRHAAEIANMSLDILSSVGTFFKMRHMPVVRIR
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```

TRTRPLE - GFP Tag - V

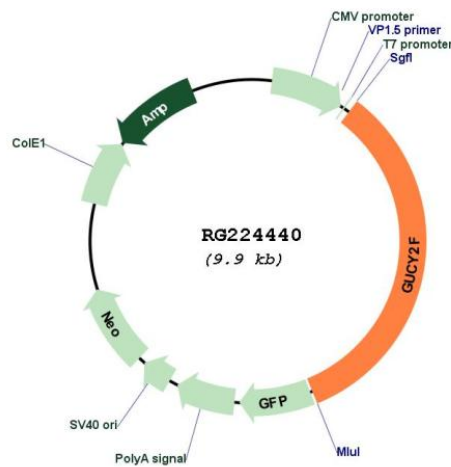
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001522

**ORF Size:** 3324 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001522.1, NP_001513.1</u>
<b>RefSeq Size:</b>	3723 bp
<b>RefSeq ORF:</b>	3327 bp
<b>Locus ID:</b>	2986
<b>UniProt ID:</b>	<u>P51841</u>
<b>Cytogenetics:</b>	Xq22.3-q23
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Purine metabolism
<b>Gene Summary:</b>	The protein encoded by this gene is a guanylyl cyclase found predominantly in photoreceptors in the retina. The encoded protein is thought to be involved in resynthesis of cGMP after light activation of the visual signal transduction cascade, allowing a return to the dark state. This protein is a single-pass type I membrane protein. Defects in this gene may be a cause of X-linked retinitis pigmentosa. [provided by RefSeq, Dec 2008]