

## Product datasheet for **SC310563**

### RGR (NM\_002921) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RGR (NM_002921) Human Untagged Clone
Tag:	Tag Free
Symbol:	RGR
Synonyms:	RP44
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_002921 edited  
 GGGAGAGTGAGGATGGCAGAGACCAAGTGCCTTGCCACCGGCTTCGGGGAGCTCGAGGTG  
 CTGGCTGTGGGGATGGTGTCTACTGGTGAAGCTCTCTCCGGTCTCAGCCTCAATACCCTG  
 ACCATCTTCTCTTTCTGCAAGACCCCGGAGCTGCGGACTCCCTGCCACCTACTGGTGCTG  
 AGCTTGGCTCTTGCAGACAGTGGGATCAGCCTGAATGCCCTCGTTGCAGCCACATCCAGC  
 CTTCTCCGTGTCTCCACAGGCGCTGGCCCTACGGCTCGGACGGCTGCCAGGCTCACGGC  
 TTCCAGGGCTTTGTGACAGCGTTGGCCAGCATCTGCAGCAGTGCAGCCATCGCATGGGGG  
 CGTTATACCACTACTGCACCCGTAGCCAGCTGGCCTGGAACCTCAGCCGTCTCTGGTG  
 CTCTTCGTGTGGCTGTCTTCTGCCTTCTGGCAGCTCTGCCCTTCTGGGTTGGGGTCA  
 TATGACTATGAGCCACTGGGACATGCTGCACCCTGGACTACTCCAAGGGGGACAGAAAC  
 TTCACCAGCTTCTCTTACCATGTCTTCTTCAACTTCGCCATGCCCTCTTATCAGG  
 ATCACTTCTACAGTCTCATGGAGCAGAACTGGGGAAGAGTGGCCATCTCCAGGTAAC  
 ACCACTCTGCCAGCAAGGACGCTGCTGCTCGGCTGGGGCCCTATGCCATCCTGTATCTA  
 TACGAGTCTGCAGACGTGACTTCCATCTCCCCAACTGCAGATGGTCCCCGCCCTC  
 ATTGCCAAAATGGTGCCACGATCAATGCCATCAACTATGCCCTGGGCAATGAGATGGTC  
 TGCAAGGGAACTGGCAGTGCCTCTCACCGCAGAAGAGGGAGAAGGACCGAACCAAGTGA  
 GCCTGCCACCCTGGAGTGAGCCCCAGGCCAGGAGGCTGTTCCAGGAGTCTGCCAGCAG  
 CCTCGGTGGCCAAGCCCAGACACTCACCCACCTTCCCCAGTGGCCCCGTGGATCCTGGTC  
 CTAGGCTGGACACAGGATTCAGAAAGACACCAGGCTGCACAGAAAGAGCCAGATGGACCT  
 GAGTGTGGTACAGCCCCCTACACTCAAGGCTGAGAGGCTCAGGAAAGTATTCTCTTT  
 TAAAAATAATAATAATGTAAGGGGTACAGTGCAGTTTTGTTACATGGATAGATTGCC  
 TAGTGGTGAAGTCTGGGCTTTTAGTGTAACCATCACCTAATAATATACGTTGTACCCAT  
 TAAGTTATTTCTCATCCCTCACCCCTCCACCTTGTACCCCTTCTGAGTCTCCAATGTC  
 TATTATCCACACTCCATGTCCACGTGTACACATTATTTAGCTCCCACTTACAAGTGAGA  
 ACATGTGGTATTTGACTTCTGTTTTGAGTTATTTCACTTAAAATAATGACCTCCAGTT  
 TCATCCATGTTGCTGCAAAAGACATGATCTCGTCTTTTTTATGGCAGTGTAGTATTCCA  
 TTCCATATACATATAAACGTTATATATATGTAACGTTTTCTTTATCCAATCATCTGTT  
 GATGGATAGATCCATATCTTTGCTACTGTAACAGAGCTGTGATAAGCATACAAGTGCA  
 GGTTCCTTTTGTATATACTGATTTCTTTTCTTTGGGTAGATACCAGTAGTAGGACTGCT  
 GGATCAAATGGTAGCTCTATTTTAAGACAGTATGGAGAAATCACCATACTGTTTTCCAT  
 AGGGGTTGTAATAATTTACAGTCCCACCAACAGTGTATAGGTGTTCCCTTTTCTCTGCAT  
 CCTTACCAATATCTGTAATTTTTGACTTTTTAATAATAGCCATTCTCATTGTGTGAGA  
 TAAGGTCTCATTGTGGTTTTAATTTCCATTTCTCTGATGACTTTTGATGTTAAGCATTTT  
 TTCATATGCTTCTTAGCCACGTGTATGTATTCTTTTTGAAAAATGTTTATTTCATGTCTT  
 TTGCCACTTTTTAATGGCATTATTTGGATTTTTTTGTTGAGTTATTTGAGTTTCTTAT  
 ATATTTCTGGATAATAGTCTGGATAATATATTCTGGATAATATAATAGTCTTATATATT  
 CTGGATAATTTCTGGATACATGGTTTGCAATATTTTCTCCGGTCTGCACGTTGTTTCAT  
 TCTGTTGATGGTTATTTTGTCTGTGCAGAACTTTTTTAGTTTAAATTAAGTCCCATTGTT  
 CTAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_002921

**Insert Size:** 2300 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** It is not a variant.

<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_002921.3, NP_002912.2</u>
<b>RefSeq Size:</b>	1475 bp
<b>RefSeq ORF:</b>	888 bp
<b>Locus ID:</b>	5995
<b>UniProt ID:</b>	<u>P47804</u>
<b>Cytogenetics:</b>	10q23.1
<b>Domains:</b>	7tm_1
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Gene Summary:</b>	<p>This gene encodes a putative retinal G-protein coupled receptor. The gene is a member of the opsin subfamily of the 7 transmembrane, G-protein coupled receptor 1 family. Like other opsins which bind retinaldehyde, it contains a conserved lysine residue in the seventh transmembrane domain. The protein acts as a photoisomerase to catalyze the conversion of all-trans-retinal to 11-cis-retinal. The reverse isomerization occurs with rhodopsin in retinal photoreceptor cells. The protein is exclusively expressed in tissue adjacent to retinal photoreceptor cells, the retinal pigment epithelium and Mueller cells. This gene may be associated with autosomal recessive and autosomal dominant retinitis pigmentosa (arRP and adRP, respectively). Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>