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Product datasheet for SC301708

RGR (NM_001012720) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RGR (NM_001012720) Human Untagged Clone
Tag:	Tag Free
Symbol:	RGR
Synonyms:	RP44
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC301708 representing NM_001012720. Blue=Insert sequence Red=Cloning site Green=Tag(s) GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC ATGGCAGAGACCAGTGCCCTGCCCACTGGCTTCGGGGAGCTCGAGGTGCTGGCTGTGGGGATGGTGCTA CTGGTGGAAGCTCTCTCCGGTCTCAGCCTCAATACCCTGACCATCTTCTCTTTCTGCAAGACCCCGGAG CTGCGGACTCCCTGCCACCTACTGGTGCTGAGCTTGGCTCTTGCGGACAGTGGGATCAGCCTGAATGCC CTCGTTGCAGCCACATCCAGCCTTCTCCGGCGCTGGCCCTACGGCTCGGACGGCTGCCAGGCTCACGGC TTCCAGGGCTTTGTGACAGCGTTGGCCAGCATCTGCAGCAGTGCAGCCATCGCATGGGGGCGTTATCAC CACTACTGCACCCGTAGCCAGCTGGCCTGGAACTCAGCCGTCTCTCTGGTGCTCTTCGTGTGGCTGTCT TCTGCCTTCTGGGCAGCTCTGCCCCTTCTGGGTTGGGGTCACTACGACTATGAGCCACTGGGGACATGC TGCACCCTGGACTACTCCAAGGGGGACAGAAACTTCACCAGCTTCCTCTTCACCATGTCCTTCTTCAAC TTCGCCATGCCCCTCTTCATCACGATCACTTCCTACAGTCTCATGGAGCAGAAACTGGGGAAGAGTGGC CATCTCCAGGTAAACACCACTCTGCCAGCAAGGACGCTGCTGCTCGGCTGGGGCCCCTATGCCATCCTG TATCTATACGCAGTCATCGCAGACGTGACTTCCATCTCCCCCAAACTGCAGATGGTGCCCGCCCTCATT GCCAAAATGGTGCCCACGATCAATGCCATCAACTATGCCCTGGGCAATGAGATGGTCTGCAGGGGAATC TGGCAGTGCCTCTCACCGCAGAAGAGGGAGAAGGACCGAACCAAGTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
Restriction Sites:	SgfI-MluI
ACCN:	NM_001012720
Insert Size:	876 bp

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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:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001012720.1
RefSeq Size:	1463 bp
RefSeq ORF:	876 bp
Locus ID:	5995
UniProt ID:	P47804
Cytogenetics:	10q23.1
Protein Families:	Druggable Genome, GPCR, Transmembrane
MW:	31.9 kDa
Gene Summary:	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] Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 5' coding region, compared to variant 1, resulting in a shorter protein (isoform 2), compared to isoform 1.