

## Product datasheet for **RG226861**

### **GPR56 (ADGRG1) (NM\_001145771) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GPR56 (ADGRG1) (NM_001145771) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ADGRG1
Synonyms:	BFPP; BPPR; GPR56; TM7LN4; TM7XN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG226861 representing NM\_001145771  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGACTCCCCAGTCGCTGCTGCAGACGACACTGTTCTCTGCTGAGTCTGCTTTCCTGGTCCAAGGTGCC  
ACGGCAGGGGCCACAGGGAAGACTTTCGTTCTGCAGCCAGCGGAACCAGACACACAGGAGCAGCCTCCA  
CTACAAACCCACACCAGACCTGCCATCTCCATCGAGAATCCGAAGAGGCCCTCACAGTCCATGCCCT  
TTCCTGCAGCCACCCTGCTTCCCGATCTTCCCTGACCCAGGGGCCTCTACCACTTCTGCCTTACT  
GGAACCGACATGCTGGGAGATTACATCTTCTATGGCAAGCGTGACTTCTTGCTGAGTGACAAAGCCTC  
TAGCCTCTCTGCTTCCAGCACCAGGAGAGCCTGGCTCAGGGCCCCCGCTGTTAGCCACTTCTGTC  
ACCTCCTGGTGGAGCCCTCAGAACATCAGCCTGCCAGTCCCGCCAGTTACCTTCTCCTCCACAGTC  
CTCCCCACACGGCCGCTCACAATGCCTCGGTGGACATGTGCGAGCTCAAAGGGACCTCCAGCTGCTCAG  
CCAGTTCTGAAGCATCCCCAGAAGGCCCAAGGAGGCCCTCGGCTGCCCGCCAGCCAGCAGTTGCAG  
AGCCTGGAGTCGAAACTGACCTCTGTGAGATTCATGGGGGACATGGTGTCTTCGAGGAGACCGGATCA  
ACGCCACGGTGTGGAAGCTCCAGCCACAGCCGGCCTCCAGGACCTGCACATCCACTCCCGCAGGAGGA  
GGAGCAGAGCGAGATCATGGAGTACTCGGTGCTGCTGCCTCGAACACTCTTCCAGAGGACGAAAGCCGG  
AGCGGGGAGGCTGAGAAGAGACTCCTCCTGGTGGACTTACGACGCAAGCCCTGTTCCAGGACAAGAATT  
CCAGCCACGTCTGGGTGAGAAGTCTTGGGGATTGTGGTACAGAACACCAAAGTAGCCAACCTCACGGA  
GCCCGTGGTGTACCTTCCAGCACCAGCTACAGCCGAAGAATGTGACTCTGCAATGTGTGTTCTGGGT  
GAAGACCCACATTGAGCAGCCCGGGCATTGGAGCAGTGTGGTGTGAGACCGTCAGGAGAGAAACCC  
AAACATCCTGCTTCTGCAACCATTGACCTACTTTGCAGTGTGATGGTCTCCTCGGTGGAGGTGGACGC  
CGTGCACAAGCACTACCTGAGCCTCCTCCTACGTGGGCTGTGTCGTCTCTGCCCTGGCCTGCCTTGT  
ACCATTGCCCGCTACCTCTGCTCCAGGGTGCCCTGCCGTGCAGGAGGAAACCTCGGGACTACACCATCA  
AGGTGCACATGAACCTGCTGCTGGCCGTCTTCTGCTGGACACGAGCTTCTGCTCAGCGAGCCGGTGGC  
CCTGACAGGCTCTGAGGCTGGCTGCCGAGCCAGTGCCATCTTCTGCACTTCTCCTGCTCACCTGCCTT  
TCCTGGATGGCCTCGAGGGGTACAACCTTACCAGCTCGTGGTGGAGGTCTTGGCACCTATGTCCCTG  
GCTACCTACTCAAGCTGAGCGCCATGGGCTGGGCTTCCCCTCTTCTGGTACGCTGGTGGCCCTGGT  
GGATGTGGACAACTATGGCCCCATCATCTTGGCTGTGCATAGGACTCCAGAGGGCGTCATCTACCCTTC  
ATGTGCTGGATCCGGGACTCCCTGGTCACTACATCACCACCTGGGCTTTCAGCCTGGTGTCTTCTGT  
TCAACATGGCCATGCTAGCCACCATGGTGGTGCAGATCCTGCGGCTGCGCCCCACACCCAAAAGTGGTC  
ACATGTGCTGACACTGCTGGCCTCAGCCTGGTCTTGGCCTGCCCTGGGCTTGATCTTCTTCTCCTT  
GCTTCTGGCACCTTCCAGCTTGTGTCCTTACCTTTTCAGCATCATCACCTCCTTCCAAGGCTTCTCTCA  
TCTTACTGTGACTGGTCCATGCGGCTGCAGGCCGGGTGGCCCTCCCTCTGAAGAGCAACTCAGA  
CAGCGCCAGGCTCCCCATCAGCTCGGGCAGCACCTCGTCCAGCCGCATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG226861 representing NM\_001145771  
 Red=Cloning site Green=Tags(s)

MTPQSLQLQTTFLLLSLLFLVQGAHGRGHREDFRFSQQRNQTHRSSLHYKPTPDLRISIENSEEALTVHAP  
 FPAAHPASRSFPDPRGLYHFCLYWNRHAGRLHLLYGKRDFLSDKASSLLCFQHQEESLAQGPPLLATSV  
 TSWWSPQNI SLPSAASF TFSHSPHTAAHNASVDMCELKRDQLLSQFLKHPQKASRRPSAAPASQQLQ  
 SLESKLT SVRFMGDMVSFEEDRINATVWKLQPTAGLQDLHIHSRQEEEQSEIMEYSVLLPRTLFRQTKGR  
 SGAEAKRLLLVD FSSQALFQDKNSSHVLGEKVLGI VVQNTKVANLTPVVLT FQHQLQPKNVTLQCVFW  
 EDPTLSSPGHWSSAGCETVRRETQTSFCNHLTYFAVLMVSSVEVDVAVHKHYLSLLSYVGLCVSALACL  
 TIAAYLCSRVP LPCRPRDYTIKVHMLLLAVFLDTSFLLSEPVALTGSEAGCRASAI FLHFSLLTCL  
 SWMGLEGYNLYRLVVEVFGTYVPGYLLKLSAMGWGFIFLVTLVALVDVDNYGPIILAVHRTPEGVIYPS  
 MCWIRDSLVS YITNLGLFSLVFLFNMAMLATMVVQILRLRPHTQKWSHVL TLLGLSLVGLPWALIFFSF  
 ASGTFQLVVL YLFSIITSFQGLIFIWYWSMLQARGGPSPLKSNDSARLPISSGSTSSRI

TRTRPLE - GFP Tag - V

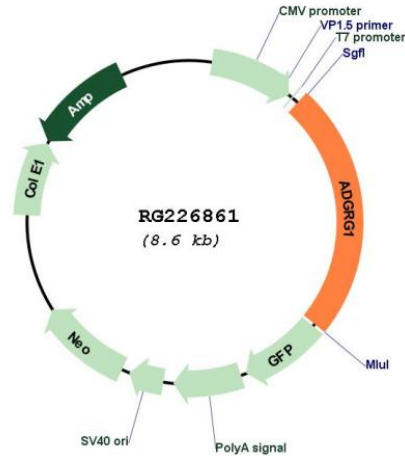
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_001145771

**ORF Size:** 2079 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:**

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\\_001145771.1](#), [NP\\_001139243.1](#)

**RefSeq Size:** 3996 bp

RefSeq ORF:	2082 bp
Locus ID:	9289
UniProt ID:	<a href="#">Q9Y653</a>
Cytogenetics:	16q21
Protein Families:	Druggable Genome, GPCR, Transmembrane
Gene Summary:	<p>This gene encodes a member of the G protein-coupled receptor family and regulates brain cortical patterning. The encoded protein binds specifically to transglutaminase 2, a component of tissue and tumor stroma implicated as an inhibitor of tumor progression. Mutations in this gene are associated with a brain malformation known as bilateral frontoparietal polymicrogyria. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]</p>