

## Product datasheet for **SC302956**

### **GPR149 (NM\_001038705) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GPR149 (NM_001038705) Human Untagged Clone
Tag:	Tag Free
Symbol:	GPR149
Synonyms:	IEDA; PGR10; R35
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_001038705 edited  
 ATGTCTTTATTTCTCAGTAACTTATCAACAAATGACTCTAGCCTGTGGAAAGAGAATCAT  
 AATTCTACGGACCTTTTAAATCCGCCAGGAACCCTGAATATCTATCTTTTTTGGCTTGACA  
 TGTCTCATGACTTTTGCAGCCTTGGTGGCAGCATTATTTACTAATTTCCCTGCTGAAA  
 ATGCAGAACAGAACTGTTGTGTCCATGCTTGTGGCTTCTGGTCTGTGGATGATCTCATG  
 AGCGTCTGTGCGGTGACCATCTTCATGTTTTTGCAGTGGCCAAACGAGGTCCCGGTTAC  
 TTCCAATTTCTGTGCACCACCTTGCCTTAATGATTTATGCCAGGGCCTCTCTAGCAAC  
 TTGAAGGCGACTCTCCTAGTCTCTTACAACCTTTTATACGATGCACAGAGGTGTGGGGAGC  
 CAGACAGCTCCAGAAGATCGGGCCAGGTGCTCGGCGTGGTGTGACCCTGTGGGAGCC  
 AGTCTGTCTCTCGGCCTCCCGCTGTGCGGCTGGGGCGCCTTCGTGCGCACGCCCTGG  
 GGCTGCCTGGTGGACTGCTCCAGCTCTACGTACTATTCTCTCTATCGTGTACGCTTTG  
 GCCTTCGGACTCCTCGTGGGCTCTCAGTCCACTCACTACCGATTGCTGTGTTCCGGAG  
 GAGCCGCCGAGACTCCACTCCAACCTACCAGGAAATTTCCCGTGGAGCTTCAATTCCTGGG  
 ACCCTCTACTGCGGGAGAGTGGTTTCCCTGTCCCCAGAGGATGCTCCAGGCCGAGT  
 CTGCGGCGCTCTGGGGATGCTCTCCGAGCTCCGACACCGTGTTCGGACCGGGTGGCCCC  
 GCTGCCGCTGGGGCTGAAGCCTGCAGGCGTGAGAACCGGGGACTCTCTATGGCACCCAGG  
 AGCTTACCGTGAGCGTAGCGCAGAAGCGCTTCGCTTTGATCCTAGCGCTTACAAAAGTC  
 GTCCTTTGGTGCCCATGATGATGCACATGGTGGTCCAGAACGTCGTGGGGTTTCAGAGC  
 CTTCCCTTGGAGACATTCAGCTTTCTACTTACCCTGCTGGCCACCACTGTAACCCAGTG  
 TTTGTCTTGTCCAAACGCTGGACCCACTTGCCTGTGGCTGCATCACTGCAGGCAG  
 AACGCATATGCAGTGGCGTCCGATGGGAAAAAATCAAGAGAAAAGGCTTTGAATTCAT  
 CTATCATTCCAAAAAGTTATGGGATTTATAAAATAGCACATGAAGATTACTATGATGAT  
 GATGAAAATTCATATTCTATCACAACTGATGAACTCTGAGTGTGAACTACAAAAGAC  
 CCTCAGAGAGACAACCGTAACATCTTCAATGCTATAAAAGTAGAAATCAGCACCCAGCCC  
 TCTCTGGACAGCTCCACAAAGAGGCATCAACAAATGCACAAATACTGATATTACAGAA  
 GCTAAACAGGATTCACAAACAAAAAGGATGCGTTTTCTGACAAAACAGGAGGTGATATT  
 AACTATGAAGAACTACCTTTTCTGAAGGGCCAGAAAGAAGACTGTCTCATGAAGAGAGT  
 CAGAAACCAGATCTTTCAGACTGGGAGTGGTGTAGGAGTAAATCAGAAAGAACCCCTCGT  
 CAGCGTTCGGTTATGCCCTTGCCATTCCTTGTGTGCATTCCAGGGGACTGTGCTCTC  
 CATGCACCTACAGGGAAAACCTATCTCTTTCTACCTATGAGGTAAAGCGCAGAAGGGCAA  
 AAAATAACTCCAGCCTCTAAGAAAATAGAAGTCTATCGATCCAAAAGTGTGGCCATGAA  
 CCAAACCTCAGAAGATTCTTCATCCACGTTTGTGGACACCAGTGTGAAAATACACTTGGAG  
 GTTCTTGAAATTTGTGATAATGAAGAGGCCTTGGACACTGTGCAATCATTAGTAACATC  
 AGTCAGTCTCCACAAAGTCAGATCTCCATCCCTACGTTACTCCAGGAAAGAAAACAGA  
 TTTGTTTCATGTGACCTAGGGGAAACAGCCTCATACTCCCTCTTTTTGCCACCAGTAAT  
 CCTGATGGTGATTAATATCTCCATCCAGACACAGTAGAAGCACACAGGCAGAACAGT  
 AAAAGGCAGCATCAAGAGAGGGATGGCTACCAGGAGGAAATCCAGTTGTTAAATAAAGCT  
 TACAGAAAAAGAGAGGAAGAAAGCAAGGGTAGTTAG

**Restriction Sites:** Please inquire  
**ACCN:** NM\_001038705  
**Insert Size:** 5200 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](mailto: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:** The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference. It has a 3kb 3' UTR sequence not found in the RefSeq sequence.

**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\\_001038705.1](#), [NP\\_001033794.1](#)

**RefSeq Size:** 2323 bp

**RefSeq ORF:** 2196 bp

**Locus ID:** 344758

**UniProt ID:** [Q86SP6](#)

**Cytogenetics:** 3q25.2

**Protein Families:** Druggable Genome, GPCR, Transmembrane

**Gene Summary:**

This gene encodes a seven-transmembrane G protein coupled receptor (GPCR) class A family member. Although categorized as a class A GPCR, the encoded protein lacks the first two charged amino acids of the highly conserved Asp-Arg-Tyr (DRY) motif found in the third transmembrane helix of class A receptors which is important for efficient G protein-coupled signal transduction. Mice with a knockout of the orthologous gene are viable and have normal maturation of the ovarian follicle, but show enhanced fertility and ovulation. All GPCRs have a common structural architecture consisting of seven transmembrane alpha-helices interconnected by three extracellular and three intracellular loops. A general feature of GPCR signaling is agonist-induced conformational changes in the receptor, leading to activation of the heterotrimeric G proteins, which consist of the guanine nucleotide-binding G-alpha subunit and the dimeric G-beta-gamma subunits. The activated G proteins then bind to and activate numerous downstream effector proteins, which generate second messengers that mediate a broad range of cellular and physiological processes. [provided by RefSeq, Jul 2017]