

Product datasheet for **RG223772**

GPR149 (NM_001038705) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPR149 (NM_001038705) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GPR149
Synonyms:	IEDA; PGR10; R35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG223772 representing NM_001038705
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTTTATTTCTCAGTAACTTATCAACAAATGACTCTAGCCTGTGAAAGAGAATCATAATTCTACGG
 ACCTTTTAAATCCGCCAGGAACCTGAATATCTATCTTTTTTGCTTGACATGTCTCATGACTTTTGCAGC
 CTTGGTGGGCAGCATTTTATTCACTAATTTCCCTGCTGAAAATGCAGAACAGAAGTGTGTGTCATGCTT
 GTGGCTTCTGGTCTGTGGATGATCTCATGAGCGTCTGTGCGTGACCATCTTCATGTTTTTGCAGTGCC
 CAAACGAGGTCCCGGTTACTTCCAATTTCTGTGCACCACCTCTGCCTAATGTATTTATGCCAGGGCCT
 CTCTAGCAACTGAAGGGGACTCTCTAGTCTCTTACAACCTTTTATACGATGCACAGAGGTGTGGGGAGC
 CAGACAGCCTCCAGAAGATCGGGCCAGGTGCTCGGCGTGGTGTGACCGTGTGGGCAGCCAGTCTGCTGC
 TCTCGGCCTCCCGCTGTGCGGTGGGGCGCTTCGTGCGCACGCCCTGGGGCTGCCTGGTGGACTGCTC
 CAGCTCCTACGTACTATTCCTCTCTATCGTGTACGCTTTGGCCTTCGGACTCCTCGTGGGCCTCTCAGTC
 CCACTCACTACCGATTGCTGTGTTTCGGAGGAGCCGCGGAGACTCCAACCTCAACTACCAGGAAATTTCCC
 GTGGAGCTTCAATTCCTGGGACCCCTCCTACTGCGGGGAGAGTGGTTTCCCTGTCCCCAGAGGATGCTCC
 AGGCCCGAGTCTGCGGCGCTCTGGGGGATGCTCTCCGAGCTCCGACACCGTGTTCGGACCGGGTGCGCC
 GCTGCCGCTGGGGCTGAAGCCTGCAGGCGTGAGAACCGGGGGACTCTCTATGGCACAGGAGCTTACCCG
 TGAGCGTAGCGCAGAAGCGCTTCGCTTTGATCCTAGCGCTTACAAAAGTCGTCTTTGGCTGCCATGAT
 GATGCACATGGTGGTCCAGAACGTCGTGGGGTTTTCAGAGCCTTCCCTGGAGACATTCAGCTTTCTACTT
 ACCCTGTGGCCACCCTGTAACCCAGTGTGTTGCTTGTCCAAACGCTGGACCCACTTGCCTGTGGCT
 GCATCACTCAACTGCAGGCAGAACGCATATGCAGTGGCGTCCGATGGGAAAAAATCAAGAGAAAAGCTT
 TGAATTCATCTATCATTCCAAAAAGTTATGGGATTTATAAAATAGCACATGAAGATTACTATGATGAT
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 ACAACCGTAACATCTTCAATGCTATAAAAGTAGAAATCAGCACACGCCCCTCTCTGGACAGCTCCACACA
 AAGAGGCATCAACAAATGCACAAATACTGATATTACAGAAGCTAAACAGGATTCCAACAACAAAAGGAT
 GCGTTTTCTGACAAAACAGGAGGTGATTAATACTATGAAGAACTACCTTTTCTGAAGGGCCAGAAAAGAA
 GACTGTCTCATGAAGAGAGTCAGAAACCAGATCTTTCAGACTGGGAGTGGTGTAGGAGTAAATCAGAAAG
 AACCCCTCGTCAGCGTTCGGTTATGCCCTTGCCATTCCCTTGTGTGCATTCCAGGGGACTGTGTCTCTC
 CATGCACCTACAGGGAAAACCTATCTCTTTCTACCTATGAGGTAAGCGCAGAAGGGCAAAAATAACTC
 CAGCCTCTAAGAAAATAGAAGTCTATCGATCCAAAAGTGTGGCCATGAACCAAACCTCAGAAGATTCTTC
 ATCCACGTTTGTGGACACCAGTGTGAAAATACACTTGGAGGTTCTTGAAATTTGTGATAATGAAGAGGCC
 TTGGACACTGTGTCAATCATTAGTAACATCAGTCAGTCCCTCCACACAAGTCAGATCTCCATCCCTACGTT
 ACTCCAGGAAAGAAAACAGATTTGTTTCATGTGACCTAGGGGAAACAGCCTCATACTCCCTCTTTTTGCC
 CACCAGTAATCCTGATGGTGATTAATATCTCCATTCCAGACACAGTAGAAGCACACAGGCAGAACAGT
 AAAAGGCAGCATCAAGAGAGGGATGGCTACCAGGAGGAAATCCAGTTGTTAAATAAAGCTTACAGAAAAA
 GAGAGGAAGAAAGCAAGGGTAGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG223772 representing NM_001038705
 Red=Cloning site Green=Tags(s)

MSLFLSNLSTNDSSLWKENHNSTDLLNPPGTLNIYLFCLTCLMTFAALVGSIIYSLISLLKMQNRTVVSM
 VASWSVDDLMSVLSVTIFMFLQWPNEVPGYFQFLCTTSALMYLCQGLSSNLKATLLVSYNFYTMHRGVGS
 QTASRRSGQVLGVVLTVAASLLL SALPLCGWGAFVRTPWGCLVDCSSSYVFLSIVYALAFGLLVGLSV
 PLTHRLLCSEEPRLHSNYQEISRGASIPGTPPTAGRVVSLSPEDAPGPSLRRSGGCSPPSDDTVFGPGAP
 AAAGAEACRRENRTLYGTRSFVTVSVAQKRFALILALTKVVLWLPMMHMVVQNVVGFQSLPLETF SLL
 TLLATTVPVFLSKRWTHLPCGCIINCRQNAVAVASDGKKIKRKGFEFNL SFQKSYGIYKIAHEDYDD
 DENSI FYHNL MNSECETTKDPQRDNRNIFNAIKVEISTTPSLDSSTQRGINKCTNDITEAKQDSNNKGD
 AFSDKTGGDINYEETTFSEGPERRLSHEESQKPDLSDEWCRSKSERTPRQRSGYALAIPLCAFQGTVSL
 HAPTGTKLSLSTYEVSAEQKITPASKKIEVYRSKSVGHEPNSEDSSSTFVDTSVKIHLEVLICDNEEA
 LDTVSIISNISQSSTQVRSPSLRYSRKENRFVSCDLGETASYSLFLPTSNPDGDINISIPDVEAHRQNS
 KRQHQRDGYQEEIQLLNKAYRKREESKGS

TRTRPLE - GFP Tag - V

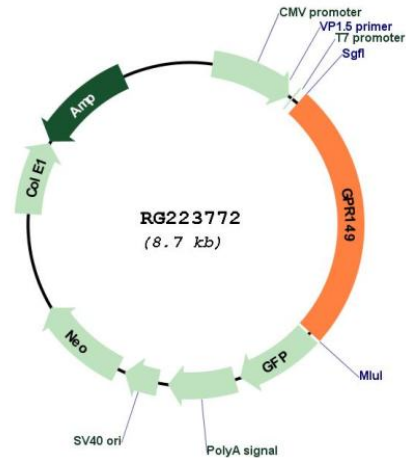
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001038705

ORF Size: 2193 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 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: 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_001038705.3](#)

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]