

Product datasheet for **RC223772**

GPR149 (NM_001038705) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPR149 (NM_001038705) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPR149
Synonyms:	IEDA; PGR10; R35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC223772 representing NM_001038705
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTTTATTTCTCAGTAACTTATCAACAAATGACTCTAGCCTGTGAAAGAGAATCATAATTCTACGG
 ACCTTTTAAATCCGCCAGGAACCTGAATATCTATCTTTTTTGCTTGACATGTCTCATGACTTTTGCAGC
 CTTGGTGGGCAGCATTTTACTCAATTTCCCTGCTGAAAATGCAGAACAGAAGTGTGTGCCATGCTT
 GTGGCTTCTGGTCTGTGGATGATCTCATGAGCGTCTGTGCGTGACCATCTTCATGTTTTTGCAGTGCC
 CAAACGAGGTCCCGGTTACTTCCAATTTCTGTGCACCACCTCTGCCTAATGTATTTATGCCAGGGCCT
 CTCTAGCAACTGAAGGGGACTCTCCTAGTCTCTTACAACCTTTATACGATGCACAGAGGTGTGGGGAGC
 CAGACAGCCTCCAGAAGATCGGGCCAGGTGCTCGGCGTGGTGTGACCGTGTGGGCAGCCAGTCTGCTGC
 TCTCGGCGCTCCCGCTGTGCGGCTGGGGCGCTTCGTGCGCACGCCCTGGGGCTGCCTGGTGGACTGCTC
 CAGCTCCTACGTACTATTCCTCTCTATCGTGTACGCTTTGGCCTTCGGACTCCTCGTGGGCTCTCAGTC
 CCACTCACTACCGATTGCTGTGTTTCGGAGGAGCCGCCGAGACTCCAACCTCAACTACCAGGAAATTTCCC
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 GCTGCCGCTGGGGCTGAAGCCTGCAGGCGTGAGAACCGGGGGACTCTCTATGGCACCAGGAGCTTACC
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 GATGCACATGGTGGTCCAGAACGTCGTGGGGTTTCAGAGCCTTCCCTGGAGACATTCAGCTTTCTACTT
 ACCCTGTGGCCACCCTGTAACCCAGTGTTTGTCTTGTCCAACGCTGGACCCACTTGCCTGTGGCT
 GCATCATCAACTGCAGGCAGAACGCATATGCAGTGGCGTCCGATGGGAAAAAATCAAGAGAAAAAGCTT
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 GCGTTTTCTGACAAAACAGGAGGTGATATTAATGAAAGAACTACCTTTTCTGAAGGGCCAGAAAAGAA
 GACTGTCTCATGAAGAGAGTCAGAAACCAGATCTTTCAGACTGGGAGTGGTGTAGGAGTAAATCAGAAAG
 AACCCCTCGTCAGCGTTCGGTTATGCCCTTGCCATTCCCTTGTGTGCATTCCAGGGGACTGTGTCTCTC
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 ATCCACGTTTGTGGACACCAGTGTGAAAATACACTTGGAGGTTCTTGAAATTTGTGATAATGAAGAGGCC
 TTGGACACTGTGTCAATCATTAGTAACATCAGTCAGTCCTCCACACAAGTCAGATCTCCATCCCTACGTT
 ACTCCAGGAAAGAAAACAGATTTGTTTCATGTGACCTAGGGGAAACAGCCTCATACTCCCTCTTTTTGCC
 CACCAGTAATCCTGATGGTGATTAATATCTCCATTCCAGACACAGTAGAAGCACACAGGCAGAACAGT
 AAAAGGCAGCATCAAGAGAGGGATGGCTACCAGGAGGAAATCCAGTTGTTAAATAAAGCTTACAGAAAAA
 GAGAGGAAGAAAGCAAGGGTAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223772 representing NM_001038705
 Red=Cloning site Green=Tags(s)

MSLFLSNLSTNDSSLWKENHNSTDLLNPPGTLNIYLFCLTCLMTFAALVGSIIYSLISLLKMQNRTVVSM
 VASWSVDDLMVLSVTIFMFLQWPNEVPGYFQLCTTSALMYLCQGLSSNLKATLLVSYNFYTMHRGVGS
 QTASRRSGQVLGVVLTVWAASLLL SALPLCGWGA FVRTPWGCLVDCSSSYVLFLSIYYALAFGLLVGLSV
 PLTHRLLCSEEPRLHSNYQEISRGASIPGTPPTAGRVVSLSPEDAPGPSLRRSGGCSPPSDTVFGPGAP
 AAAGAEACRRRENRTLYGTRSF TVSVAQKRFALILALTKVVLWLPMMHMVVQNVVGFQSLPLETF SFL
 TLLATTVPVFVLSKRWTHLPCGCIINCRQNAVAVASDGKKIKRKGFEFNL SFQKSYGIYKIAHEDYDD
 DENSI FYHNL MNSECETTKDPQRDNRNIFNAIKVEISTTPSLDSSTQRGINKCTNDITEAKQDSNNKDD
 AFSDKTGGDINYEETTFSEGPERRLSHEESQKPDLSDEWCRSKSERTPRQRSGYALAIPLCAFQGTVSL
 HAPTGTKLSLSTYEVSAEQKITPASKKIEVYRSKSVGHEPNSEDSSSTFVDTSVKIHLEVLICDNEEA
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 KRQHQRDGYQEEIQLLNKAYRKREESKGS

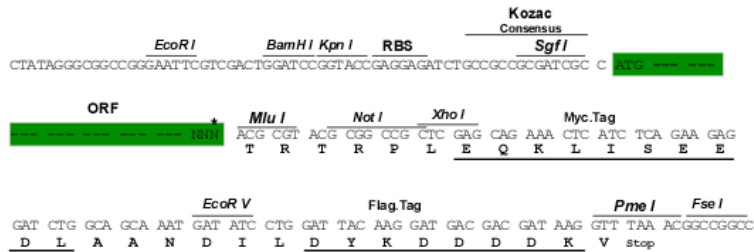
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6818_a07.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

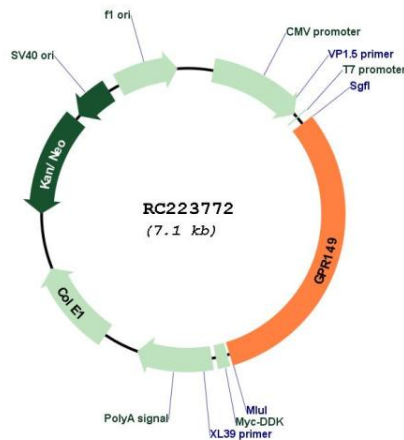
ACCN: NM_001038705

ORF Size: 2193 bp

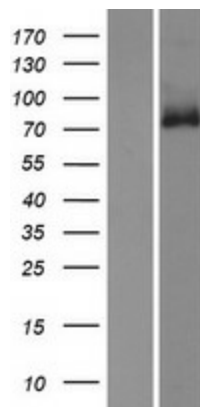
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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
MW:	80.8 kDa

Gene Summary:

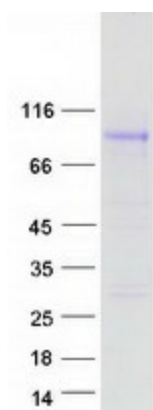
This gene encodes a seven-transmembrane G protein coupled receptor (GPCR) class A family member. Although categorized as a class A GPCR, the encoded protein lacks the first two charged amino acids of the highly conserved Asp-Arg-Tyr (DRY) motif found in the third transmembrane helix of class A receptors 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]

Product images:


Circular map for RC223772



Western blot validation of overexpression lysate (Cat# [LY422009]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223772 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GPR149 protein (Cat# [TP323772]). The protein was produced from HEK293T cells transfected with GPR149 cDNA clone (Cat# RC223772) using MegaTran 2.0 (Cat# [TT210002]).