

## Product datasheet for **RG218370**

### GPR40 (FFAR1) (NM\_005303) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GPR40 (FFAR1) (NM_005303) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GPR40
Synonyms:	FFA1R; GPCR40; GPR40
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218370 representing NM_005303 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACCTGCCCCGCAGCTCTCCTTCGGCCTCTATGTGGCCGCTTTGCGCTGGGCTTCCCGCTCAACG  
TCCTGGCCATCCGAGGCGCAGGCCACGCCGGCTCCGTCTCACCCCTAGCCTGGTCTACGCCCTGAA  
CCTGGGCTGCTCCGACCTGCTGCTGACAGTCTCTCTGCCCTGAAGGCGGTGGAGGCGCTAGCCTCCGGG  
GCCTGGCCTCTGCCGGCCTCGTGTGCCCGTCTTCGCGGTGGCCACTTCTCCACTCTATGCCGGCG  
GGGGCTTCTGGCCGCCCTGAGTGCAGGCCGCTACCTGGGAGCAGCCTTCCCCTTGGGCTACCAAGCCTT  
CCGGAGGCCGTGCTATTCTGGGGGTGTGCGCGCCATCTGGGCCCTCGTCTGTGTCACCTGGGTCTG  
GTCTTTGGGTTGGAGGCTCCAGGAGGCTGGCTGGACCACAGCAACACCTCCCTGGGCATCAACACACCGG  
TCAACGGCTCTCCGGTCTGCCTGGAGGCTGGGACCCGGCCTCTGCCGGCCCGGCCGCTTACGCTCTC  
TCTCTGCTCTTTTTCTGCCCTTGCCATCACAGCCTTCTGCTACGTGGGCTGCCTCCGGGCACTGGCC  
CACTCCGGCTGACGCACAGGCGGAAGCTGCGGGCCGCTGGGTGGCCGGCGGGGCCCTCCTCACGCTGC  
TGCTCTGCGTAGGACCCTACAACGCTCCAACGTGGCCAGCTTCTGTACCCCAATCTAGGAGGCTCCTG  
GCGGAAGCTGGGCTCATCACGGGTGCTGGAGTGTGGTGCTTAATCCGCTGGTGACCGTTACTTGGGA  
AGGGTCTGGCCTGAAGACAGTGTGTGCGCAAGAACGAAGGGGGCAAGTCCAGAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG218370 representing NM\_005303  
 Red=Cloning site Green=Tags(s)

MDLPPQLSFGLYVAAFALGFPLNVLAIRGATAHARLRLTPSLVYALNLGCSDLLLTVSLPLKAVEALASG  
 AWPLPASLCPVFAVAHFPLYAGGGFLAAL SAGRYLGAAFPLGYQAFRRPCYSWGVCAAIWALVLCGLGL  
 VFGLEAPGGWLDHSNTSLGINTPVNGSPVCLEAWDPASAGPARFSLSLLLFFLPLAITAFCYVGLRALA  
 HSGLTHRRKLRAAWVAGGALLLLLLCVGPYNASNVASFLYPNLGGSWRKLG LITGAWSVVLNPLVTGYLG  
 RGPGLKTVCAARTQGGKSQK

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005303

**ORF Size:** 900 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\\_005303.1](#), [NP\\_005294.1](#)

**RefSeq Size:** 903 bp

**RefSeq ORF:** 903 bp

**Locus ID:** 2864

**UniProt ID:** [O14842](#)

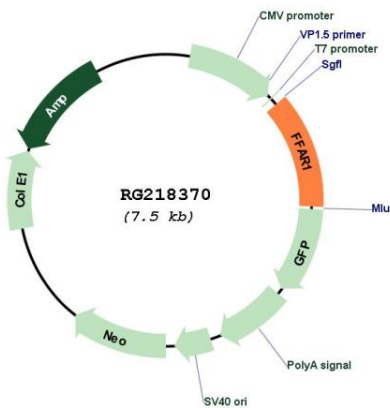
**Cytogenetics:** 19q13.12

**Domains:** 7tm\_1

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

**Gene Summary:** This gene encodes a member of the GP40 family of G protein-coupled receptors that are clustered together on chromosome 19. The encoded protein is a receptor for medium and long chain free fatty acids and may be involved in the metabolic regulation of insulin secretion. Polymorphisms in this gene may be associated with type 2 diabetes. [provided by RefSeq, Apr 2009]

### Product images:



Circular map for RG218370