

Product datasheet for **MG222997**

Ffar1 (NM_194057) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ffar1 (NM_194057) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ffar1
Synonyms:	Gpr40
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG222997 representing NM_194057 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACCTGCCCCACAGCTCTCCTTCGCTCTCTATGTATCTGCCTTTGCGCTGGGCTTTCATTGAACT
TGTTAGCCATCCGAGGCGCAGTGTCCCACGCTAACTGCGACTCACTCCCAGCTTGGTCTACACTCTCCA
TCTGGGCTGCTGATCTCCTACTGGCCATCACTCTGCCCTGAAGGCTGTGGAGGCCCTGGCTTCTGGA
GCCTGGCCCTGCCGCTCCCTTCTGCCAGTCTTTGCCCTGGCCACTTTGCTCCCTCTACGCAGGCG
GAGGCTTCTAGCTGCTCTCAGCGCTGGCCGCTACCTGGGGCTGCCTTCCCTTCGGGTACCAAGCCAT
CCGAGGCCCCGCTATTCTGGGGTGTGTGTGGCTATATGGGCCCTTGTCTCTGCCACTGGGGCTG
GCCCTTGGCTTGGAGACTTCCGGAAGCTGGCTGGACAACAGTACCAAGTTCCTGGGCATCAACATACCCG
TGAATGGCTCCCCGGTCTGCCTGGAAGCCTGGGATCCCGACTCTGCCCGCCCTGCCCGTCTCAGTTTCTC
CATTCTGCTCTTCTTCTGCCCTTGGTCATCACTGCCTTCTGCTATGTGGGCTGCCTCCGGGCCCTGGT
CGCTCAGGCTGAGCCACAAACGGAAGCTCAGGGCAGCTTGGGTGGCCGGAGGCGCTCTCCTCACACTCC
TGCTCTGCCTGGGGCCCTATAATGCCTCCAATGTGGCTAGTTTCATAAACCCGGACCTAGGAGGCTCCTG
GAGGAAGTTGGGACTCATCACAGGGCCCTGGAGTGTGGTACTCAACCCACTGGTCACTGGTCACTTGGGA
ACAGGTCTGGACGGGGAACAATATGTGTGACGAGGACTCAAAGAGGAACAATTGAGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG222997 representing NM_194057
Red=Cloning site Green=Tags(s)

MDLPPQLSFALYVSFAFALGFPLNLLAIRGAVSHAKLRLTPSLVYTLHLGCSDLLLAITLPLKAVEALASG
 AWPLPLPFCPVFALAHFAPLYAGGGFLAAL SAGRYLGAAFPFGYQAIRRPRYSWVCVAIWALVLCGLGL
 ALGLETSGSWLDNSTSSLGINIPVNGSPVCLEAWDPDSARPARLSFSILLFFLPLVITAFQYVGLRALV
 RSLGSHKRKLRAAWVAGGALLLLLLCLGPYNASNVASF INPDLGGSWRKLG LITGAWSVVLNPLVTGYLG
 TGPGRGTICVTRTQRGTIQK

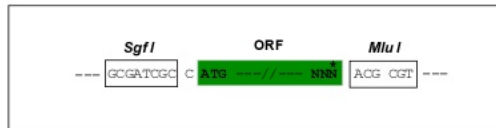
TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1666_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_194057

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_194057.2](#), [NP_918946.2](#)

RefSeq Size: 903 bp

RefSeq ORF: 903 bp

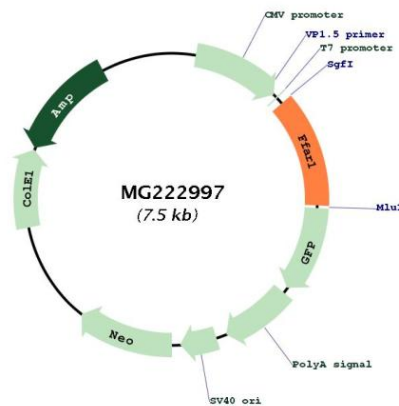
Locus ID: 233081

UniProt ID: [Q76JU9](#)

Cytogenetics: 7 B1

Gene Summary: G-protein coupled receptor for medium and long chain saturated and unsaturated fatty acids that plays an important role in glucose homeostasis. Fatty acid binding increases glucose-stimulated insulin secretion, and may also enhance the secretion of glucagon-like peptide 1 (GLP-1). May also play a role in bone homeostasis; receptor signaling activates pathways that inhibit osteoclast differentiation (PubMed:23335512). Ligand binding leads to a conformation change that triggers signaling via G-proteins that activate phospholipase C, leading to an increase of the intracellular calcium concentration. Seems to act through a G(q) and G(i)-mediated pathway.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG222997