

## Product datasheet for **MG210313**

### Gpd2 (NM\_010274) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gpd2 (NM_010274) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gpd2
Synonyms:	AA408484; AI448216; AU021455; AW494132; Gdm1; Gpd-m; GPDH; Gpdh-m; TISP38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>MG210313 representing NM\_010274  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCGTTTCAAAGGCCAGTGAAGGGGACTATTCTTGTGGGTGGAGGAGCTCTGGCCACTGTTTTGGGAC  
TCTCTCAGTTTGCTCATTACAGAAGGAAGCAAGTGAGCCTGGCGTATGTGGAAGCAGCAGGATACCTCAC  
GGAGCCTGTGAACAGGGAACCTCCCTCCAGAGAAGCTCAGCTCATGACTTTGAAGAACACACCCGAATTT  
GACATCCTTGTATCGGAGGCGGAGCCACAGGGTGTGGCTGTGCACTAGATGCCGTACCAGAGGACTGA  
AAACAGCCCTTGTAGAGAGAGATGACTTCTCATCGGGGACTAGCAGTAGAAGCACTAAATTGATCCACGG  
TGGTGTGCGATACCTCCAGAAGGCTATCATGAACTTGGATGTTGAGCAGTATAGGATGGTAAAGAAGCC  
CTTCACGAACGTGCCAATTACTAGAAATCGCTCCTCATTTATCAGCTCCGTTGCCTATCATGCTTCCAC  
TTTACAAGTGGTGGCAGTTACCTTATTACTGGTGGGAATCAAGATGTATGACCTGGTTGCAGGGAGTCA  
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AAGCTGGTAGGCCCAATTGTCTACTATGACGGACAACACAACGATGCACGGATGAACCTCGCCATCGCCC  
TCACTGCTGCCAGGTACGGGGCTGCCACGGCAATTACATGGAGGTGGTGGAGCTTGTCAAGAAGACAGA  
CCCTGAAACCGGCAAAGAGCGAGTGAGCGGTGCGCGGTGCAAGGATGTGCTCACAGGGCAGGAATTTGAC  
GTGAGAGCCAAATGCGTTATCAATGCCTCCGGCCCTTTCACAGACTCCGTGCGCAAAATGGATGATAAAA  
ACGTTGTTCCCATCTGCCAGCCAGTGCCGGGGTCCATATTGTGATGCCCGGATACTACAGCCCTGAGAA  
CATGGGACTTCTTGATCCTGCAACCAGTGATGGCAGAGTGATTTTCTTCTGCTTGGGAGAAGATGACA  
ATTGCTGGCACCCTGATACGCCAACGGACGTCACGCACCCTATTCTTTCAGAAGAAGACATTAAC  
TCATCCTGAATGAAGTGGGAACTACCTGAGTTCTGAGTTGAAGTGAGAAGAGGGGATGCTTGGCAGC  
CTGGAGTGGTATCCGTCCCTTGTACTGATCCCAAGTCTGCAGACACTCAGTCCATCTCTCGAAATCAT  
GTTGTGGACATCAGTGACAGCGGACTCATCAATAGCAGGTGGGAAGTGGACCCTACCCTCCATGG  
CAGAAGATACCGTGAATGCAGCTGTCAAGTTTCACAACTGAATGCGGGACCGAGTAGGACTGTTGGGCT  
GTTCTTCAAGGAGGCAAAGACTGGAGCCCACTCTACATCAGGCTTGTCCAGGATTATGGGCTTGAG  
AGCGAGGTTGCACAACATCTGGCCAAAACCTATGGTGACAAGGCTTTTGAGGTGGCCAAATGGCAAGTG  
TGACTGGAAGCGGTGGCTGTTGTTGGAGTGCCTTGTGTGAGAAATTCATACATTGAAGCAGAGGT  
GAAATACGGCATTAAAGGAGTATGCCTGCACTGCAGTTGACATGATCTCACGGCGCACCCGCTGGCCTTT  
CTCAATGTTGAGGCTGCAGAGGAAGCCCTGCCTAGGATTGTTGAACTAATGGGAAGAGAGTTGAACTGGA  
GTGAATTGAGGAAACAGGAAGAAGTGAACAGCCACGAGATTTCTGACTATGAAATGGGCTACAAGTC  
TCGAACAGAACTTACAGATAGCACTGAAATCAGCCTGCTGCCTTTCAGACATCGATAGGTACAAGAAG  
AGATTTACAAGTTTGTGAAGATGAAAAGGCTTCAATACCATTGTTGATGTTGAGCGTGTCTAGAGA  
GTATCAATGTACAAATGGACGAAAACACTGCATGAAATTTCTGCGAAGTAGATTTGAACAAAAATGG  
ACAGGTTGAGCTGCACGAGTTTCTGCAGCTGATGAGCGCAGTTTCAGAAAGGAAGGGTCTCTGGAAGCCGA  
CTTGCCATCTGATGAAAATGCCGAGGAGAAGTTGGACCGCAGAGTTCCAATCCCGTGGACCGTAGTT  
GTGGAGGATTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210313 representing NM\_010274  
 Red=Cloning site Green=Tags(s)

MAFQKAVKGTILVGGALATVLGLSQFAHYRRKQVSLAYVEAAGYLTEPVNREPPSREAQLMTLKNTPPEF  
 DILVIGGGATGCGCALDAVTRGLKTALVERDDFSSGTSSRSTKL IHGGVRYLQKAIMNLDVEQYRMVKEA  
 LHERANLLEIAPHL SAPLPIMLPYKWWQLPYWVGIKMYDLVAGSQCLKSSYVLSKSRAL EHF PMLQKD  
 KLVGAI VYYDGGHNDARMNLAIALTAARYGAATANYMEVVSLLKKTDPETGKERVSGARCKDVL TGQEFD  
 VRAKCVINASGPF TDSVRKMDDKNVPIQPSAGVHIVMPGYSPENMGLLDPATSDGRVIFFLPWEKMT  
 IAGTTDPTDVTHTHPIPSEEDINFILNEVRNYLSSDVEVRRGDVLAAWSGIRPLVTPDKSADTQSI SRNH  
 VVDISDSGLITIAGGKWTYRSM AEDTVNAAVKFHNLNAGPSRTVGLFLQGGKDWSP TLYIRLVQDYGLE  
 SEVAQHLAKTYGDKAFEVAKMASVTGKRWPVVG VRLVSEFPYIEAEVKYGIKEYACTAVDMI SRTRLAF  
 LNVQAAEEALPRIVELMGRELN WSELRKQEELETATRFLLYEMGYKSRTEQLTDSTEISLLPSDIDRYKK  
 RFHKFDEDEKGFITIVDQVRVLESINVQMDENTLHEILCEVDLNKNGQVELHEFLQLMSAVQKGRVSGSR  
 LAILMKTAENLDRRVPVDRSCGGL

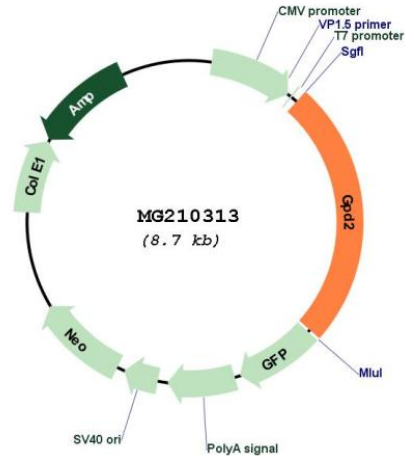
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_010274

**ORF Size:** 5617 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:** 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\\_010274.2](#)

**RefSeq Size:** 2626 bp

**RefSeq ORF:** 2184 bp

**Locus ID:** 14571

**UniProt ID:** [Q64521](#)

**Cytogenetics:** 2 31.66 cM

**Gene Summary:** Calcium-responsive mitochondrial glycerol-3-phosphate dehydrogenase which seems to be a key component of the pancreatic beta-cell glucose-sensing device.[UniProtKB/Swiss-Prot Function]