

## Product datasheet for **MR210313**

### Gpd2 (NM\_001145820) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gpd2 (NM_001145820) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpd2
Synonyms:	AA408484; AI448216; AU021455; AW494132; Gdm1; Gpd-m; GPDH; Gpdh-m; TISP38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR210313 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGTTTCAAAGGCCAGTGAAGGGGACTATTCTTGTGGGTGGAGGAGCTCTGGCCACTGTTTTGGGAC  
 TCTCTCAGTTTGCTCATTACAGAAGGAAGCAAGTGAGCCTGGCGTATGTGGAAGCAGCAGGATACCTCAC  
 GGAGCCTGTGAACAGGGAACCTCCCTCCAGAGAAGCTCAGCTCATGACTTTGAAGAACACACCCGAATTT  
 GACATCCTTGTTATCGGAGGCGGAGCCACAGGGTGTGGCTGTGCACTAGATGCCGTACCAGAGGACTGA  
 AAACAGCCCTTGTAGAGAGAGATGACTTCTCATCGGGGACTAGCAGTAGAAGCACTAAATTGATCCACGG  
 TGGTGTGCGATACCTCCAGAAGGCTATCATGAACCTGGATGTTGAGCAGTATAGGATGGTAAAGAAGCC  
 CTTACGAACGTGCCAATTACTAGAAATCGCTCCTCATTTATCAGCTCCGTTGCCTATCATGCTTCCAC  
 TTTACAAGTGGTGGCAGTTACCTTATTACTGGGTGGGAATCAAGATGTATGACCTGGTTGCAGGGAGTCA  
 ATGCCCTGAAGAGCAGTTACGTCTCAGCAAATCCCGAGCCCTGGAGCATTTTCCCATGCTCCAGAAGGAC  
 AAGCTGGTAGGCCCAATTGTCTACTATGACGGACAACACAACGATGCACGGATGAACCTCGCCATCGCCC  
 TCACTGCTGCCAGGTACGGGGCTGCCACGGCAATTACATGGAGGTGGTGAAGCTTCTCAAGAAGACAGA  
 CCCTGAAACCGGCAAAGAGCGAGTGAGCGGTGCGCGGTGCAAGGATGTGCTCACAGGGCAGGAATTTGAC  
 GTGAGAGCCAAATGCGTTATCAATGCCTCCGGCCCTTTACAGACTCCGTGCGCAAAATGGATGATAAAA  
 ACGTTGTTCCCATCTGCCAGCCAGTGCCGGGGTCCATATTGTGATGCCCGGATACTACAGCCCTGAGAA  
 CATGGGACTTCTTGATCCTGCAACCAAGTATGGCAGAGTGATTTTCTTCTGCTTGGGAGAAGATGACA  
 ATTGCTGGCACCAGTATACGCCAACGGACGTCACGCACCCTATTCTTCCAGAAAGACATTAAC  
 TCATCCTGAATGAAGTGGGAACTACCTGAGTTCTGAGTTGAAGTGAAGAAGGGGATGCTTGGCAGC  
 CTGGAGTGGTATCCGTCCCTTGTACTGATCCCAAGTCTGCAGACACTCAGTCCATCTCTCGAAATCAT  
 GTTGTGGACATCAGTGACAGCGGACTCATCACAATAGCAGGTGGGAAGTGGACCCTACCCTCCATGG  
 CAGAAGATACCGTGAATGCAGCTGTCAAGTTTCACAACTGAATGCGGGACCGAGTAGGACTGTTGGGCT  
 GTTCCTTCAAGGAGGCAAAGACTGGAGCCCACTCTACATCAGGCTTGTCCAGGATTATGGGCTTGAG  
 AGCGAGGTTGCACAACATCTGGCCAAAACCTATGGTGACAAGGCTTTTGAGGTGGCCAAAATGGCAAGT  
 TGACTGGAAAGCGGTGGCCTGTTGTTGGAGTGCCTTGTGTGAGAAATTCATACATTGAAGCAGAGGT  
 GAAATACGGCATTAAAGGAGTATGCCTGCACTGCAGTTGACATGATCTCACGGCGCACCCGCTGGCCTTT  
 CTAATGTTGAGGCTGCAGAGGAAGCCCTGCCTAGGATTGTTGAACTAATGGGAAGAGAGTTGAACTGGA  
 GTGAATTGAGGAAACAGGAAGAAGTGAACAGCCACGAGATTTCTGACTATGAAATGGGCTACAAGTC  
 TCGAACAGAACTTACAGATAGCACTGAAATCAGCCTGCTGCCTTACAGATCGATAGGTACAAGAAG  
 AGATTTACAAGTTTGTGAAGATGAAAAGGCTTCAATACCATTGTTGATGTTGAGCGTGTCTAGAGA  
 GTATCAATGTACAAATGGACGAAAACACTGCATGAAATTTCTGCGAAGTAGATTTGAACAAAAATGG  
 ACAGGTTGAGCTGCACGAGTTTCTGCAGCTGATGAGCGCAGTTGAGAAAGGAAGGTTCTTGAAGCCGA  
 CTTGCCATCTGATGAAAATGCCGAGGAGAAGTTGGACCGCAGAGTTCCAATCCCGTGGACCGTAGTT  
 GTGGAGGATTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR210313 protein sequence  
 Red=Cloning site Green=Tags(s)

MAFQKAVKGTILVGGALATVLGLSQFAHYRRKQVSLAYVEAAGYLTEPVNREPPSREAQLMTLKNTPEF  
 DILVIGGGATGCGCALDAVTRGLKTALVERDDFSSGTSSRSTKL IHGGVRYLQKAIMNLDVEQYRMVKEA  
 LHERANLLEIAPHL SAPLPIMLPYKWWQLPYWVGIKMYDLVAGSQCLKSSYVLSKSRAL EHF PMLQKD  
 KLVGAI VYYDGGHNDARMNLAI ALTAARYGAATANYMEVVSLLKKTDPETGKERVSGARCKDVL TGQEFD  
 VRAKCVINASGPF TDSVRKMDDKNVVPICQPSAGVHIVMPGYSPENMGLLDPATSDGRVIFFLPWEKMT  
 IAGTTDPTDVTTHPIPSEEDINFILNEVRNYLSSDVEVRRGDVLAAWSGIRPLVTPDKSADTQSI SRNH  
 VVDISDSGLITIAGGKWT TYRSM AEDTVNAAVKFHNLNAGPSRTVGLFLQGGKDWSP TLYIRLVQDYGLE  
 SEVAQHLAKTYGDKAFEVAKMASVTGKRWPVGVRLVSEFPYIEAEVKYGIKEYACTAVDMI SRRTLAF  
 LNVQAAEEALPRIVELMGREL NWS ELRKQEELETATRF LYYEMGYKSRTEQLTDSTEISLLPSDIDRYKK  
 RFHKFDEDEKGFITIVDQVRVLESINVQMDENTLHEILCEVDLNKNGQVELHEFLQLMSAVQKGRVSGSR  
 LAILMKTAEENLDRRVP IPVDRSCGGL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



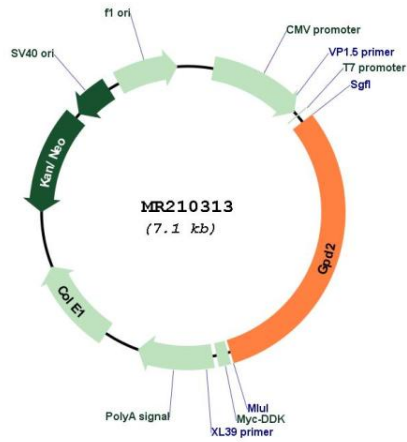
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001145820

**ORF Size:** 2184 bp

<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001145820.1</a></u> , <u><a href="#">NP_001139292.1</a></u>
<b>RefSeq Size:</b>	5745 bp
<b>RefSeq ORF:</b>	2184 bp
<b>Locus ID:</b>	14571
<b>UniProt ID:</b>	<u><a href="#">Q64521</a></u>
<b>Cytogenetics:</b>	2 31.66 cM
<b>MW:</b>	81 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for MR210313