

## Product datasheet for **SC119913**

### **GPD2 (NM\_000408) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GPD2 (NM_000408) Human Untagged Clone
Tag:	Tag Free
Symbol:	GPD2
Synonyms:	GDH2; GPDM; mGDH; mGPDH
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

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>OriGene ORF sequence for NM_000408 edited
GCGGCCGCGAATTCGGCACGAGGCTCGCTGGGAGCACCCGGCCGAGGCTCTGATTCTGG
GGGGAGGCCGACTCCACCCTGGCTGGAGGAACTGGGTGCTCTGCCCGCTGGCCCCTCGC
GCGTGAGGATCTATCTCAGGCTAAGAAATGGCATTTCAAAAGGCAGTGAAAGGGACGATT
CTTGTTGGAGGAGGTGCTCTTGAACCTGTTTTAGGACTTTCTCAGTTTGCTCATTACAGA
AGGAAACAATGAACCTGGCCTATGTTAAAGCAGCAGACTGCATTTCAGAACCAGTTAAC
AGGGAGCCTCCTCCAGAGAAGCTCAGCTACTGACTTTGCAAAAACACATCTGAATTTGAT
ATCCTTGTATTGGAGGAGGAGCAACAGGAAGTGGCTGTGCGCTAGATGCTGTCCACAGA
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ACTAAATTGATCCATGGTGGTGTGAGATATCTGCAGAAGGCCATCATGAAGTTGGATATT
GAGCAGTATAGGATGGTAAAAGAAGCCCTTCATGAGCGTGCCAACCTGCTAGAAATTGCT
CCCCATTTATCAGCTCCATTGCCTATAATGCTTCCAGTTTACAAGTGGTGGCAGTTACCT
TACTACTGGGTAGGAATCAAGCTGTATGATTTGGTTGCAGGAAGCAATTGCCTAAAAAGC
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CTGGTAGGAGCAATTGTCTACTATGACGGACAACATAACGATGCACGGATGAACCTTGCC
ATTGCTCTGACTGCTGCCAGGTATGGGGCTGCCACAGCCAATTACATGGAGGTAGTGAGC
TTGCTCAAGAAGACAGACCCCCAGACAGGAAAGTGCCTGTGAGCGGCGCACGGTGAAG
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AGTGCTGGTGTCCATATTGTGATGCCTGGTTATTACAGCCAGAGAGCATGGGACTTCTT
GACCCAGCAGCAGTGTGGCGAGTTATTTCTTTACCCTGGCAAAAGATGACGATC
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GGGGATGTCCTGGCAGCATGGAGTGGAAATCCGCTCTTGTACAGACCCCAAATCTGCA
GATACTCAGTCTATCTCCGAAATCATGTTGTTGATATCAGTGAGAGTGGCCTTATTACT
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TTGAAACAGCCAGGAAGTTTCTATATTATGAAATGGGCTATAAATCTCGATCAGAACAGT
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AAAAAGGAAGGTATCTGGAAGCCGGCTTGCTATACTAATGAAAACCTGCAGAAGAGAACC
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TAAATCCACAGCCAACAACATAGAAAACGACAAATCACCATGTAACAACAGAGATGACT
GAAACCACTCTGAAATAATGAATGTGGATAGCTGCCTTTTTTAACTAGAAAACATTCC
AAAACCTTAAGGTGTTGGTGTATTTGCCAGCTTTATTTGCTGACTTTATTTGATTTTGC
CATTTCAGTCTAGCTTTTAAAGTATATTTTTTCTTTTCTCATTTCATGATATAGTT
TTGCATCTGTTTTGTGACCTGTTAGATGTGACACATTCTTTTTTGTATTCCCTTATT
CTAAATGAGTTCTAAAAACATAATT
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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_000408 unedited</p> <pre> NGGTCAGAATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCTCGCTGG GAGCACCCGGGCCGAGGCTCTGATTCTGGGGGGAGGCCGACTCCACCCTGGCTGGAGGAA CTGGGTGCTCCTGCCCGTGGCCCTCGCGCGTGAGGATCTATCTCAGGCTAAGAAATGG CATTTCAAAGGCAGTGAAGGGACGATTCTTGTGGAGGAGGTGCTCTTGCAACTGTTT TAGGACTTTCAGTTTGCTCATTACAGAAGGAAACAAATGAACCTGGCCTATGTTAAAG CAGCAGACTGCATTTCAGAACCAGTTAACAGGGAGCCCTCCTCCAGAGAAGCTCAGCTAC TGACTTTGCAAAAACACATCTGAATTTGATATCCTTGTTATTGGAGGAGGCAACAGGAA GTGGCTGTGCGCTAGATGCTGTCAACCAGAGGACTAAAAACAGCCCTTGTAGAAAGAGATG ATTTCTCATCAGGGACCAGCAGCAGAAGCACTAAATTGATCCATGGTGGTGTGAGATATC TGCAGAAGGCCATCATGAAGTTGGATATTGAGCAGTATAGGATGGTAAAAGAAGCCCTTC ATGAGCGTGCCAACCTGCTAGAAATTGCTCCCCATTTATCAGCTCCATTGCCTATAATGC TTCCAGTTTACAAGTGGTGGCAGTTACCTTACTACTGNGTAGGAATCAAGCTGTATGATT TGTTTGCAGGAAGCAATTGCCTAAAAAGCAGTTATGTCCTCAGCAATCAAGAGCCCTTG AACATTTCCCAATGCTCCAGAAGGACANACTGGGTAGAGCAATTGTCTACTATGACGGGA CACATAACGATGCACGGATGAACCTTGCCATTGCTCTGACTGCTGCCAGTATGGNGGCT GCA </pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_000408 unedited</p> <pre> CACGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTGGCCAAAATTATGTTTTTGAAC TCATTTAGAATAAGGGAATAAACAAAAAGAGAATGTGTCACATCTAACAGGTCACAAAAC AGATGCAAAACTAATATGCATTGAAAATGAGAAAAAGAAAAAATACTTAAAAGCTAG ACTGAATGGCAAATCTAAATAAAGTACAGCAAATAAAGCTGGCAAATACACCAACACCTT AAAGTTTTGGAATGTTTTCTAGTGTTAAAAAAGGCAGCTATCCACATTCATTATTTTCA GTGGTTTCAGTCATCTCTGGTTGTACATGGAGATTTGTCGTTTTCTATGTTTGTGGCTG TGGATTTACTGCCAGACTCACAATCCTCCACAACCTACGGTCCACTGGAATTGGAACCTC TCTGTCGAGGTTCTCTTTCAGTTTTTCATTAGTATAGCAAGCCGGCTTCCAGATACCCT TCCTTTTTGAATAGCACTCATCAGCTGCAAAAATTCATTGAGTTCAACCTGTCCATTTTT ATTCAAATCAACTTCATTTAAAATCTCATGGAGTGTATTTTCATCCATTTGGACATTGAT ACTCTCTATACAGCTGAACATTAACAATTGGTAATAAAGCCCTTCTGGTCTGCATAAAC CTTATGAATCTCTTCTTATACCTGTCAATGTCTGAAAGCAGTAAGCTAATTTTCAGAGCA ATCTGTTAACTGTTCTGATCGAGATTATAGCCATTTATAATAAAAAAATCCCTGGCCGT TTAAAGTGTCTCTCTTATAAAATCCCATTCACTCCCTGCCCTAATTCACAATCCCGG TAGGGCTCTTTGTTGCCGAAATTTAAAAAGCCAGCGAGTCCGACTGAAATTTTTCCAG AATGGCAGCTTCTCTTATCCCATATCACCTGGTTCAATATAGGAATTTGACAAAAATA TCTCAAAAGGCACCTTGCCAAT </pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000408
<b>Insert Size:</b>	2870 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>	<a href="#">NM_000408.2</a> , <a href="#">NP_000399.1</a>
<b>RefSeq Size:</b>	2796 bp
<b>RefSeq ORF:</b>	2184 bp
<b>Locus ID:</b>	2820
<b>UniProt ID:</b>	<a href="#">P43304</a>
<b>Cytogenetics:</b>	2q24.1
<b>Domains:</b>	EFh, DAO
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Glycerophospholipid metabolism
<b>Gene Summary:</b>	<p>The protein encoded by this gene localizes to the inner mitochondrial membrane and catalyzes the conversion of glycerol-3-phosphate to dihydroxyacetone phosphate, using FAD as a cofactor. Along with GDP1, the encoded protein constitutes the glycerol phosphate shuttle, which reoxidizes NADH formed during glycolysis. Two transcript variants encoding the same protein have been found for this gene.[provided by RefSeq, Jan 2010]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Both variants 1 and 2 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>