

Product datasheet for **RG219985**

GPD2 (NM_000408) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPD2 (NM_000408) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GPD2
Synonyms:	GDH2; GPDM; mGDH; mGPDH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG219985 representing NM_000408
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCATTTCAAAAGGCAGTGAAAGGGACGATTCTTGTGGAGGAGGTGCTCTTGCAACTGTTTTAGGAC
TTTCTCAGTTTGCTCATTACAGAAGGAAACAAATGAACCTGGCCTATGTTAAAGCAGCAGACTGCATTTT
AGAACCAGTTAACAGGGAGCCTCCTCCAGAGAAGCTCAGCTACTGACTTTGCAAAACACATCTGAATTT
GATATCCTTGTATTGGAGGAGGAGCAACAGGAAGTGGCTGTGCGCTAGATGCTGTACCAGAGGACTAA
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TTTACAAGTGGTGGCAGTACCTTACTACTGGGTAGGAATCAAGCTGTATGATTTGGTTGCAGGAAGCAA
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TGACTGCTGCCAGGTATGGGGCTGCCACAGCCAATTACATGGAGGTAGTGAAGCTTCTCAAGAAGACAGA
CCCCAGACAGGGAAAGTGGCTGTGAGCGGCGCACGGTGAAGGATGTCCTCACAGGGCAGGAATTTGAC
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CGATCAGAACAGTTAACAGATCGCTCTGAAATTAGCCTACTGCCTTCAGACATTGACAGGTATAAGAAGA
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CAGGTTGAACTCAATGAATTTTGCAGCTGATGAGTGCTATTCAAAAAGGAAGGGTATCTGGAAGCCGGC
TTGCTATACTAATGAAAAGTGCAGAAGAGAACCTCGACAGAAGAGTTCCAATTCAGTGGACCGTAGTTG
TGGAGGATTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG219985 representing NM_000408
 Red=Cloning site Green=Tags(s)

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MAFQKAVKGTILVGGALATVLGLSQFAHYRRKQMNLAYVKAADCISEPVNREPPSREAQLLTLQNTSEF
DILVIGGGATGSGCALDAVTRGLKTALVERDDFSSGTSSRSTKLIHGVRVYLQKAIMKLDIEQYRMVKEA
LHERANLLEIAPHLSAPLPIMLPVYKWWQLPYWVGIKLYDLVAGSNCLKSSYVLSKSRALHFPMLQKD
KLVGAIIVYYDGGHNDARMNLAIALTAARYGAATANYMEVVSLKKKTDPTQTKVVRVSGARCKDVLTGQEFD
VRAKCVINATGPF TDSVRKMDDKAAAICQPSAGVHIVMPGYSPESMGLLDPATSDGRVIFFLPWQKMT
IAGTTDPTDVTHTHPIPSEEDINFILNEVRNYLSCDVEVRRGDVLAAWSGIRPLVTPKSAQTQSISRNH
VVDISESLITIAGGKWTYRSMEDTINAAVKTHNLKAGPSRTVGLFLQGGKDWSP TLYIRLVQDYGLE
SEVAQHLAATYGDKAFEVAKWQV*LAKGGLLLEYVLCQNFHILKQR*NMGLRSM PALLWI*FHVVLAWPF
*MSRQQRKPYPLL N*WAGN*IGMIIRSRN LKQPGSFYIMKWA INLDQNS*QIALKLAYCLQTLTGIRR
DFISLMQTRKALLPLLMFSVY*RVSM SKWMKIHSMKF*MKLI*IKMDRLNSMNFCS**VLFKKEGYLEAG
LLY**KLQKRTSTEEFQFQWTVVVED
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000408

ORF Size: 2180 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_000408.2](#), [NP_000399.1](#)

RefSeq Size: 5820 bp

RefSeq ORF: 2184 bp

Locus ID: 2820

UniProt ID: [P43304](#)

Cytogenetics: 2q24.1

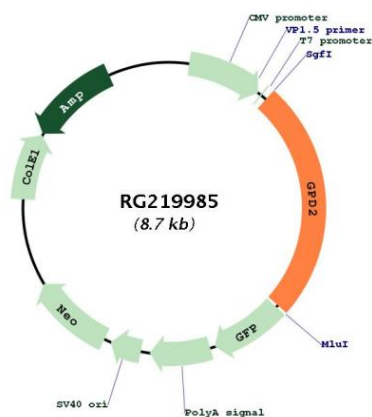
Domains: EFh, DAO

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Glycerophospholipid metabolism

Gene Summary: 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]

Product images:



Circular map for RG219985