

Product datasheet for **RC219985**

GPD2 (NM_000408) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPD2 (NM_000408) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPD2
Synonyms:	GDH2; GPDM; mGDH; mGPDH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC219985 representing NM_000408
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCATTTCAAAAGGCAGTGAAAGGGACGATTCTTGTGGAGGAGGTGCTCTTGCAACTGTTTTAGGAC
TTTCTCAGTTTGCTCATTACAGAAGGAAACAAATGAACCTGGCCTATGTTAAAGCAGCAGACTGCATTTT
AGAACCAGTTAACAGGGAGCCTCCTCCAGAGAAGCTCAGCTACTGACTTTGCAAAAACATCTGAATTT
GATATCCTTGTATTGGAGGAGGAGCAACAGGAAGTGGCTGTGCGCTAGATGCTGTACCAGAGGACTAA
AAACAGCCCTTGTAGAAAGAGATGATTTCTCATCAGGGACCAGCAGCAGAAGCACTAAATGATCCATGG
TGGTGTGAGATATCTGCAGAAGGCCATCATGAAGTTGGATATTGAGCAGTATAGGATGGTAAAAGAAGCC
CTTCATGAGCGTGCCACCTGCTAGAAATTGCTCCCCATTTATCAGCTCCATTGCCTATAATGCTCCAG
TTTACAAGTGGTGGCAGTTACCTTACTACTGGGTAGGAATCAAGCTGTATGATTTGGTTGCAGGAAGCAA
TTGCCTAAAAGCAGTTATGTCCTCAGCAAATCAAGAGCCCTTGAACATTTCCAATGCTCCAGAAGGAC
AAACTGGTAGGAGCAATTTGCTACTATGACGGACAACATAACGATGCACGGATGAACCTTGCCATTGCTC
TGACTGCTGCCAGGTATGGGGCTGCCACAGCCAATTACATGGAGGTAGTGAAGCTTCTCAAGAAGACAGA
CCCCAGACAGGGAAAGTGGCTGTGAGCGGCGCACGGTGAAGGATGTCCTCACAGGGCAGGAATTTGAC
GTGAGAGCCAAATGTGTTATCAATGCCACGGGACCTTTACAGGACTCTGTGCGCAAAATGGATGATAAAG
ACGCAGCAGCTATCTGCCAGCCAAGTGTGGTGTCCATATTGTGATGCCTGGTTATTACAGCCAGAGAG
CATGGGACTTCTTGACCCAGCGACCAGTGTGGGCGAGTTATTTTCTTACCCTGGCAAAAGATGACG
ATCGTGGCACTACTGATACTCCAAGTGTGTTACACACCATCCAATTCCTTCAGAAGAAGATATCAACT
TCATTTTGAATGAAGTGGTAATTACCTGAGTTGTGATTTGAAGTGAAGAAGGGGATGCTCTGGCAGC
ATGGAGTGAATCCGTCCTCTTGTACAGACCCCAATCTGCAGATACTCAGTCTATCTCCGAAATCAT
GTTGTTGATATCAGTGAAGTGGCCTTATTACTATAGCAGGTGGAAAGTGGACAACCTATCGGTCTATGG
CAGAAGATACCATAAATGCTGCTGTCAAAACTCATAATTTAAAAGCAGGACCAAGTAGAACAGTTGGGCT
TTTCCTTCAAGGGGGTAAAGATTGGAGCCCCACTCTACATTAGGCTTGTGCAGGATTATGGACTTGAA
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GACTGGCAAAAGGTGGCCTATTGTTGGAGTACGCTTGTGTGCAAAATTCATATATTGAAGCAGAGGTG
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CGATCAGAACAGTTAACAGATCGCTCTGAAATTAGCCTACTGCCTTCAGACATTGACAGGTATAAGAAGA
GATTTTCATAAGTTTGTGAGACCCAGAAAGGCTTTATTACCATTGTTGATGTTACAGCGTGTATTAGAGAG
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TTGCTATACTAATGAAAAGTGCAGAAGAGAACCTCGACAGAAGAGTTCCAATTCAGTGGACCGTAGTTG
TGGAGGATTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC219985 representing NM_000408
 Red=Cloning site Green=Tags(s)

MAFQKAVKGTILVGGALATVLGLSQFAHYRRKQMNLAYVKAADCISEPVNREPPSREAQLLTLQNTSEF
 DILVIGGGATGSGCALDAVTRGLKTALVERDDFSSGTSSRSTKLIHGVRVYLQKAIMKLDIEQYRMVKEA
 LHERANLLEIAPHLSAPLPIMLPVYKWWQLPYWVGIKLYDLVAGSNCLKSSYVLSKSRALHFPMLQKD
 KLVGAIVYYDGGHNDARMNLAIALTAARYGAATANYMEVVSLLKKTDPTQTKVVRVSGARCKDVL TGQEFD
 VRAKCVINATGPF TDSVRKMDDKDAAAICQPSAGVHIVMPGYSPESMGLLDPATSDGRVIFFLPWQKMT
 IAGTTDPTDVTTHPIPSEEDINFILNEVRNYLSCDVEVRRGDVLAAWSGIRPLVTPKSAQTQSI SRNH
 VVDISESGLITIAGGKWTYRSM AEDTINA AVKTHNLKAGPSRTVGLFLQGGKDWSP TLYIRLVQDYGLE
 SEVAQHLAATYGDKA FEVAKWQV* LAKG LLL EYVLCQNFHILKQR* NMGLR SMPALLWI* FHVVLAWPF
 *MSRQQRKYPYGLLN*WAGN*IGMIIRSRN LKQPGSFYIMKWA INLDQNS* QIALK LAYCLQTLTGIRR
 DFISLMQTRKALLPLLMFSVY*RVSM SKWMKIHS MKF*MKLI*IKMDRLNSMNFCS**VLFKKEGYLEAG
 LLY**KLQKRTSTEEFQFQWTVVVED

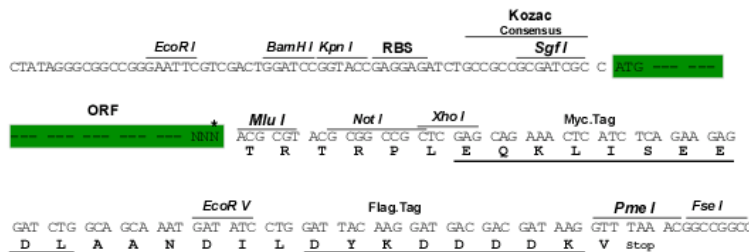
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6165_e08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000408

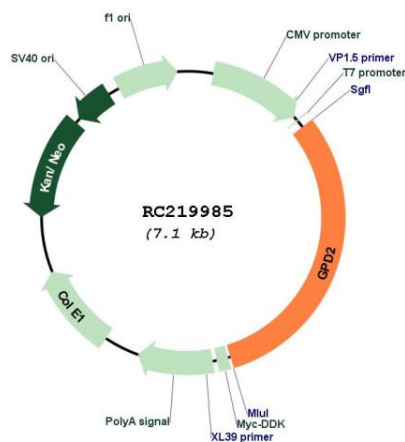
ORF Size: 1397 bp

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:	<ol style="list-style-type: none">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_000408.5
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
MW:	81.3 kDa
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 RC219985

