

Product datasheet for **RR210431**

Gpd2 (NM_012736) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpd2 (NM_012736) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpd2
Synonyms:	mtGPDH
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide
Sequence:

>RR210431 representing NM_012736
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGTTTCAAAGGTAGTGAAAGGGACTATTCTTATGGGTGGAGGAGCTCTGGCCACTGTTTTGGGAC
 TCTCTCAGTTTGCTCACTACAGAAGGAAGCAAGTAAGCCTGGCGTATGTGGAAGCAGCAACATGCTTCTC
 AGAGCCCGTGAACAGGGAGCCTCCTCCAGAGAAGCTCAGCTCATGACTCTGCAGAACACATCGGAATTT
 GACATCCTCGTCATTGGAGGAGGAGCCACAGGATGTGGCTGTGCGCTAGACGCCGTACCAGAGGACTGA
 AAACAGCCCTTGTAGAGAGAAATGACTTCGCATCAGGGACTAGCAGCAGAAGCACTAAATGATCCATGG
 TGGCGTACGATACCTCCAGAAGGCTATCACGAACCTGGATGTTGAACAGTATAGGATGGTAAAGAGGCC
 CTTTCATGAACGTGCCAATTACTAGAAATCGCTCCCCATCTATCAGCTCCGCTGCCTATAATGCTGCCAC
 TTTATAAGTGGTGGCAGTTACCTTATTACTGGGTGGGAATCAAGATGTATGATCTGGTTGCAGGAAGTCA
 TTGCCTGAAGAGCAGTTATGTCCTCAGTAAATCCAGAGCCCTTGAGCATTCCCCATGCTCCAGAAGGAC
 AAGCTGGTCGGAGCCATTGTCTACTATGATGGACAGCACAATGACGCCCGGATGAACCTCGCCATCGCCC
 TCACCCGCTGCCAGGTACGGGGCTGCCACGGCCAATTACATGGAGGTGGTGAAGCTTCTCAAGAAGACAGA
 CCCCAGAACTGGGAAAGAGCGCGTGAAGTGGTGCAGGACGTCACAGGGCATGAGTTTAAAC
 GTGAGAGCTAAATGCGTTATCAATGCCACCGGCCCTTTCACAGACTCCGTGCGCAAAATGGATGATAACG
 ATGTTGTTCCCATCTGCCAGCCAGTGCAGGGGTTACATTGTGATGCCCGGGTACTACAGCCCCGAGAA
 CATGGGACTTCTTGATCCTGCAACCAAGTATGGCAGAGTATTTTCTTCTGCTTGGGAGAAGATGACA
 ATTGCGGGTACCAGTATTGCGCAACGGACGTCACGCACCCTTATTCCTTCGGAAGACGACATTAAC
 TCATCTTAAATGAAGTGCAGGAACTACCTGAGTTGCGAGTTGAAGTGAAGAAGAGGGGATGTCCTGGCAGC
 GTGGAGTGGCATTGCGCCGCTTGTACCGATCCCAAGTCTGCAAACTCAGTCCATCTCTCGAAATCAT
 GTTGTGGAAGTCAGCGACAGTGGCCTCATCACAATAGCAGGTGGGAAGTGGACCACATATCGCTCCATGG
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 AGTGAGGTTGCACAACACCTGGCCAAAACCTATGGTGACAAGGCTTTCGACGTGGCCAAAATGGCAAGTG
 TGACTGGAAAACGGTGGCCTGTTGTTGGAGTGCCTTGTGTGAGATTTCCGTACATCGAAGCAGAGGT
 GAAATATGGGATTAAGGAGTACGCATGCACCGCTGTTGACATGATTTACGTCGCACCCGCTGGCCTTT
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 GTGAATTGAGGAAACAGGAAGAAGTGAACAGCCACGAGGTTTCTGACTATGAAATGGGCTATAAGTC
 TCGAACAGAACTCACAGATAGTACTGAAATCAGCCTGCTGCCTCCAGACATCGATCGGTACAAGAAG
 AGATTTACATGTTTGTGAAGACGAAAAGGCTTCAATACCATTGTTGATGTTCAACGTGTGCTAGAGA
 GTATCAATGTACAAATGGACGAAGACACTACATGAAATTTCTGTGAAAGTAGACTTGAACAAGAATGG
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 CTTGCCATCCTCATGAAGACTGCCGAGGAGAAGTTGGACCGTAGAGTTCCAATCCCCGGGATCGTAGTT
 GTGGAGGATTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR210431 representing NM_012736
 Red=Cloning site Green=Tags(s)

MAFQKVVKGITLMGGALATVLGLSQFAHYRRKQVSLAYVEAATCFSEPVNREPPSREAQLMTLQNTSEF
 DILVIGGGATGCGCALDAVTRGLKTALVERNDFASGTSSRSTKL IHGGVRYLQKAITNL DVEQYRMVKEA
 LHERANLLEIAPHL SAPLPIMLPYKWWQLPYWVWGIKMYDLVAGSHCLKSSYVLSKSRAL EHF PMLQKD
 KLVGAI VYYDGGHNDARMNLAI ALTAARYGAATANYMEVVSLLKKTDPETGKERVSGARCKDVL TGHEFN
 VRAKCVINATGPF TDSVRKMDDNDVVPICQPSAGVHIVMPGYSPENMGLLDPATSDGRVIFFLPWEKMT
 IAGTTDSPTDVTHHPIPSED DINFILNEVRNYLSCDVEVRRGDVLAAWSGIRPLVTDPKSANTQSISRNH
 VVEVSDSGLITIAGGKWT TYRSM AEDTVNKAVKLHNLNAGPSRTVGLFLQGGKDWSP TLYIRLVQDYGLE
 SEVAQHLAKTYGDKAFD VAKMASVTGKRWPVVG VRLVSEFPYIEAEVKYGIKEYACTAVDMI SRRTLAF
 LNVQAAEEALPKIVELMGREL NWS ELRKQEELETATRFLYEMGYKSRTEQLTDSTEISLLPPDIDRYKK
 RFHMFDEDEKGFITIVDQVRVLESINVQMEDTLHEILCEVDLNKNGQVELHEFLQLMSAVHTGRVSGSR
 LAILMKTAEENLDRRVP IPVDRSCGGL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

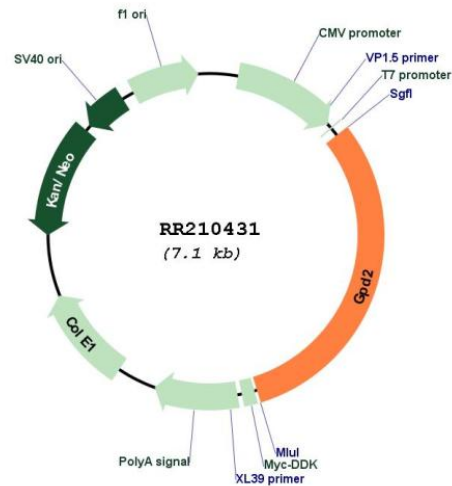
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_012736

ORF Size: 2181 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_012736.1](#), [NP_036868.1](#)

RefSeq Size: 2400 bp

RefSeq ORF: 2184 bp

Locus ID: 25062

UniProt ID: [P35571](#)
Cytogenetics: 3q21
MW: 81 kDa
Gene Summary: FAD-linked glycerol-3-phosphate dehydrogenase; expression in liver is induced by thyroid hormone [RGD, Feb 2006]