

Specifications:

Gene:	hGPD1
Accession:	NP_005267.2
Insert size:	1063bp
Concentration:	10µg at 0.2µg/µL

Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

Preparation and Storage

Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

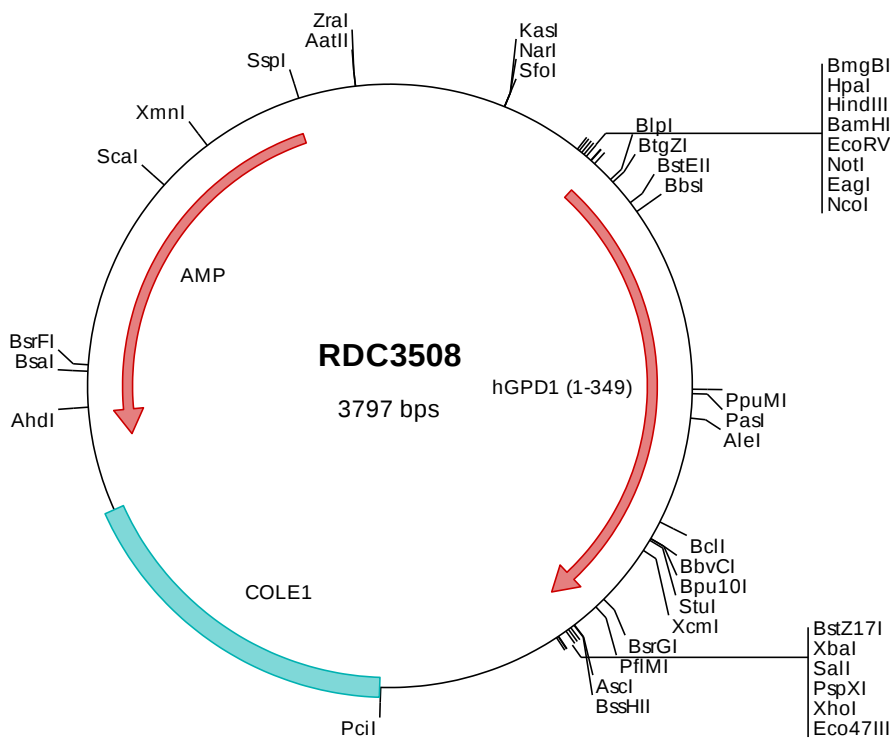
hGPD1 cDNA Plasmid

GPD1 glycerol-3-phosphate dehydrogenase 1 [*Homo sapiens* (human)]

Also known as: GPD-C; HTGTI; GPDH-C

Summary:

GPD1 is a member of the NAD-dependent glycerol-3-phosphate dehydrogenase family. GPD1 plays a critical role in carbohydrate and lipid metabolism by catalyzing the reversible conversion of dihydroxyacetone phosphate (DHAP) and reduced nicotinic adenine dinucleotide (NADH) to glycerol-3-phosphate (G3P) and NAD⁺. GPD1 and mitochondrial glycerol-3-phosphate dehydrogenase also form a glycerol phosphate shuttle that facilitates the transfer of reducing equivalents from the cytosol to mitochondria. Mutations in GPD1 are a cause of transient infantile hypertriglyceridemia. Alternatively spliced transcript variants encoding multiple isoforms have been observed.



> RDC3508 Plasmid DNA Sequence

```

1   tcgcgcgttt  cggatgatgac  ggtgaaaacc  tctgacacat  gcagctcccc  gagacggtca  cagcttgtct  gtaagcggat  gccgggagca  gacaagcccc
101  tcagggcgcg  tcagcgggtg  ttggcgggtg  tcggggctgg  ctttaactatg  cggcatcaga  gcagattgta  ctgagagtgc  accatatgcg  gtgtgaaata
201  ccgcacacgat  gcgtaaggag  aaaataccgc  atcaggcgcc  attcgccatt  caggctcgcg  aactgttggg  aagggcgatc  ggtgcgggcc  tcttcgctat
301  tacgccagct  ggcgaaaagg  ggatgtgctg  caaggcgatt  aagttgggta  acgccagggt  tttcccagtc  acgacgttgt  aaaacgacgg  ccagtgaatt
401  ggagacgtgt  taacaagctt  ggatccgata  tcgctagcgc  ggccgccacc  atggctagca  agaaagtctg  cattgtaggc  tccgggaact  ggggctcagc
501  catcgccaag  atcgtgggtg  gcaatgcagc  ccagctggca  cagtttgacc  caccgggtgac  catgtgggta  tttgaggaa  acattggagg  caaaaagctg
601  actgagatca  tcaacaogca  gcatgagaat  gtcaaatacc  tgccagggca  caagttgccc  ccaaatgtgg  tggctgtccc  agatgtggtc  caggctgcag
701  aggatgctga  catcctgac  tttgtgggtg  cccatcagtt  catcggaag  atctgtgacc  agctcaaggg  ccattgaa  gcaaacgcca  ctggcatatc
801  tcttattaag  ggggtagacg  agggccocaa  tgggctgaag  ctcatctcgg  aagtgtatgg  ggagcgctc  ggcattccca  tgagtgtgct  gatgggggoc
901  aacattgcca  gcgaggtggc  tgatgagaag  ttctgtgaga  caaccattgg  ctgcaaggac  cgggcccagg  gacaactcct  gaaagagctg  atgcagacac
1001  caaacttcag  tatcaccagt  gtgcaagagg  tggacacagt  agagatctgt  ggagccttaa  agaattgtag  ggccgtgggg  gctggcttct  gtgatggcct
1101  gggctttggc  gacaacacca  agcggcagct  gatccggctg  ggactcattg  agatgatagc  ctccgccaag  ctctctgca  gtggccctgt  gtccctgtcc
1201  acctcttgg  agagctgtgg  tgttctgac  ctgataccta  cctgctatgc  agggcggaac  cggaaagtgg  ctgaggcctt  tgcggttaca  ggaagtcca
1301  ttgagcagct  ggagaaagag  ttgctgaatg  ggcagaaaac  gcaggggccc  gagacagccc  gggagctata  cagcatcctc  cagcacaagg  gctgggtaga
1401  caagtttccc  ttgttcaatg  ctgtgtacaa  ggtgtgtctc  gaggggcacc  cagtggtgta  attcatocac  tgctgtcaga  atcatccaga  acatatgtaa
1501  aggcggcgca  gtatactcta  gactcgacac  ccggggaatt  cctcgagcgc  tcgtctctag  cttggcgtaa  tcattggtcat  agctgtttcc  tgtgtgaaat
1601  tgttatccgc  tcacaattcc  acacaacata  cgagccggaa  gcataaagtg  taagcctgg  ggtgccta  agtgagctta  actcacatta  attgctttgc
1701  gctcactgcc  cgctttccag  tcgggaaacc  tgtcgtgcca  gctgcattaa  tgaatcgccc  aacgcgcggg  gagaggcggt  ttgcgtattg  ggcgctcttc
1801  cgcttctcgc  ctaactgact  cgtgcgctc  ggtcgttcgg  ctgcggcgag  cggatcagc  tcaactaaa  gcggtaatac  ggttatccac  agaactcagg
1901  caaacctcag  tacaagaacat  gtgagcaaaa  ggccagcaaa  aggcagggaa  cggtaaaaa  ggcgctttt  tggcgttttt  ccataggctc  cgccccctg
2001  acgagcatca  caaaaatcga  cgctcaagtc  agaggtggcg  aaacccgaca  ggaactataa  gataccaggc  gtttccccct  ggaagctccc  tcgtgctcgc
2101  tctgttccg  accctgcggc  ttaccggata  cctgtccgcc  tttctccctt  gcccgaccgc  tgcgctttt  ggccgtttt  caatgtctac  tctgtaggta
2201  gtgtaggtcg  ttctgtccaa  gctgggctgt  gtgcacgaac  ccccgttcca  gcccgaccgc  tgcgctttt  ggccgtttt  ccataggctc  cgccccctg
2301  taagacacga  cttatcgcca  ctggcagcag  ccaactggtta  caggattagc  agagcagagt  atgtaggcgg  tgctacagag  ttcttgaagt  ggtggcctaa
2401  ctacggctac  actagaagga  cagtatttgg  tatctgcgct  ctgctgaagc  cagttacctt  cggaaaaaga  gttggtagct  cttgatccgg  caaacaacc
2501  accgctggta  gcggtgtttt  ttttgtttgc  aagcagcaga  ttacgcgcag  aaaaaaagga  tctcaagaag  atcctttgat  cttttctacg  gggctgtgacg
2601  ctacgtggaa  cgaaaaactc  cgttaaggga  ttttgggtat  gagattatca  aaaaggatct  tcacctagat  ccttttaaat  taataatgaa  gttttaaatc
2701  aatcctaagt  atatagagt  aaacttggtc  tgacagttac  caatgtttaa  tcagtggagg  accatctc  cgcgtctgtc  ccactctgtc  atccatagtt
2801  gcctgactcc  ccgtcgtgta  gataactacg  atacgggagg  gcttaccatc  tggcccgagt  gctgcaatga  taccgcgaga  ccacgcctca  ccggtccag
2901  atttatcagc  aataaaccag  ccagccggaa  gggccgagcg  cagaagtgg  cctgcaactt  tatccgcctc  catccagtct  attaatgtt  gccgggaagc
3001  tagagtaagt  agttcgccag  ttaatagttt  gcgcaacgtt  gttgccattg  ctacaggcat  cgtggtgtca  cgctcgtcgt  ttggtatggc  ttcatcagc
3101  tccggttccc  aacgatcaag  gcgagttaca  tgatcccca  tgttgtgcaa  aaaagcggtt  agctccttgc  gtcctccgat  cgttgtcaga  agtaagtgtg
3201  ccgcagtggt  atcactcatg  gttatggcag  cactgcataa  ttctcttact  gtcatgccat  ccgtaagatg  cttttctgtg  actggtgagt  actcaaccaa
3301  gtcattctga  gaatagtgt  tgccggcacc  gagttgctct  tgcccgcgct  caatacggga  taataccg  ccacatagca  gaactttaaa  agtgctcatc
3401  attggaaaac  gttcttcggg  gcgaaaactc  tcaaggatct  tacgcgtgtt  gagatccagt  tcgatgtaac  ccactcgtgc  acccaactga  tcttcagcat
3501  cttttacttt  caccagcgtt  tctgggtgag  caaaaacagg  aaggcaaaat  gccgcaaaa  agggaaata  ggcgacacgg  aaatgttgaa  tactcatact
3601  cttccttttt  caatattatt  gaagcattta  tcagggttat  tgtctcatga  gcggatatac  atttgaatgt  atttagaaaa  ataaacaaat  aggggttccg
3701  cgcacatttc  ccgaaaaagt  gccacgtgac  gtctaagaaa  ccattattat  catgacatta  acctataaaa  ataggcgat  cagcaggccc  tttcgtc

```

> RDC3508 Translated Insert Sequence

```

1   maskkkvci  gsnwgsaiak  ivggnaaqla  qfdprvtmwv  feediggkkl  teiintqhen  vkylpghklp  pnvvavpdvv  qaaedadili  fvvphqfigk
101  icdqlkghlk  anatgislik  gvdepgnglk  lisevigerl  gipmsvlmga  niasevadek  fcettigckd  paggqlkel  mgtpnfritv  vgevdtveic
201  galknvvavg  agfcdglgfg  dntkaavirl  glmemiafak  lfcsgpvssa  tflescgvad  littcyggrn  rkvaefart  gksieqleke  llnqqklqgp
301  etarelysil  qhkgilvdkfp  lfmayvikvcy  egqpvgfeih  clqnpehnm

```