

Product datasheet for RC206538L3

OriGene Technologies, Inc.

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Glycerol 3 Phosphate Dehydrogenase (GPD1) (NM_005276) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Glycerol 3 Phosphate Dehydrogenase (GPD1) (NM_005276) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Glycerol 3 Phosphate Dehydrogenase

Synonyms: GPD-C; GPDH-C; HTGTI

Mammalian Cell

Selection:

Puromycin

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

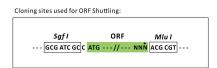
ORF Nucleotide

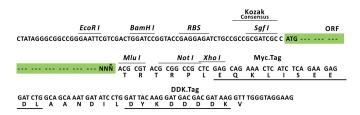
The ORF insert of this clone is exactly the same as(RC206538).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: NM_005276

ORF Size: 1047 bp





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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: <u>NM 005276.2</u>

 RefSeq Size:
 3083 bp

 RefSeq ORF:
 1050 bp

 Locus ID:
 2819

 UniProt ID:
 P21695

Cytogenetics: 12q13.12

Protein Pathways: Glycerophospholipid metabolism

MW: 37.6 kDa

Gene Summary: This gene encodes a member of the NAD-dependent glycerol-3-phosphate dehydrogenase

family. The encoded protein plays a critical role in carbohydrate and lipid metabolism by catalyzing the reversible conversion of dihydroxyacetone phosphate (DHAP) and reduced nicotine adenine dinucleotide (NADH) to glycerol-3-phosphate (G3P) and NAD+. The encoded cytosolic protein 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 this gene are a cause of transient infantile hypertriglyceridemia. Alternatively spliced transcript variants encoding multiple isoforms have been observed for

this gene. [provided by RefSeq, Mar 2012]