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Product datasheet for SC330577

Glycerol 3 Phosphate Dehydrogenase (GPD1) (NM_001257199) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glycerol 3 Phosphate Dehydrogenase (GPD1) (NM_001257199) Human Untagged Clone
Tag:	Tag Free
Symbol:	GPD1
Synonyms:	GPD-C; GPDH-C; HTGTI
Vector:	pCMV6-Entry (PS100001)
Fully Sequenced ORF:	>SC330577 representing NM_001257199. Blue=Insert sequence Red=Cloning site Green=Tag(s) ATGGCTAGCAAGAAAGTCTGCATTGTAGGCTCCGGGAACTGGGGCTCAGCCATCGCCAAGATCGTGGGT GGCAATGCAGCCCAGCTGGCACAGTTTGACCCACGGGTGACCATGTGGGTATTTGAGGAAGACATTGGA GGCAAAAAGCTGACTGAGATCATCAACACGCAGCATGAGAATGTCAAATACCTGCCAGGGCACAAGTTG CCCCCAAATGTGTTCATCGGCAAGATCTGTGACCAGCTCAAGGGCCATCTGAAGGCAAACGCCACTGGC ATATCTCTTATTAAGGGGGTAGACGAGGGCCCCAATGGGCTGAAGCTCATCTCGGAAGTGATTGGGGAG CGCCTCGGCATCCCCATGAGTGTGCTGATGGGGGCCAACATTGCCAGCGAGGTGGCTGATGAGAAGTTC TGTGAGACAACCATTGGCTGCAAGGACCCGGCCCAGGGACAACTCCTGAAAGAGCTGATGCAGACACCA AACTTCCGTATCACAGTGGTGCAAGAGGTGGACACAGTAGAGATCTGTGGAGCCTTAAAGAATGTAGTG GCCGTGGGGGCTGGCTTCTGTGATGGCCTGGGCTTTGGCGACAACACCAAGGCGGCAGTGATCCGGCTG GGACTCATGGAGATGATAGCCTTCGCCAAGCTCTTCTGCAGTGGCCCTGTGTCCTCTGCCACCTTCTTG GAGAGCTGTGGTGTTGCTGACCTGATCACTACCTGCTATGGAGGGCGGAACCGGAAAGTGGCTGAGGCC TTTGCGCGTACAGGAAAGTCCATTGAGCAGCTGGAGAAAGAGTTGCTGAATGGGCAGAAACTGCAGGGG CCCGAGACAGCCCGGGAGCTATACAGCATCCTCCAGCACAAGGGCCTGGTAGACAAGTTTCCCTTGTTC ATGGCTGTGTACAAGGTGTGCTACGAGGGCCAGCCAGTGGGTGAATTCATCCACTGCCTGCAGAATCAT CCAGAACATATGTGA
Restriction Sites:	SgfI-MluI

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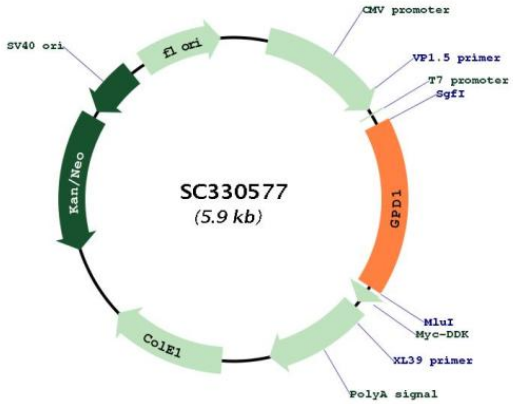
Plasmid Map:



ACCN:	NM_001257199
Insert Size:	981 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_001257199.1

RefSeq Size:	3014 bp
RefSeq ORF:	981 bp
Locus ID:	2819
UniProt ID:	P21695
Cytogenetics:	12q13.12
Protein Pathways:	Glycerophospholipid metabolism
MW:	35.1 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] Transcript Variant: This variant (2) uses an alternate splice site in the coding region, but maintains the reading frame, compared to variant 1. The encoded isoform (2) is shorter than isoform 1.