



GPD1 peptide (DAG-P0576)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	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 nicotinic 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]
Purity	70 - 90% by HPLC.
Conjugate	Unconjugated
Sequence Similarities	Belongs to the NAD-dependent glycerol-3-phosphate dehydrogenase family.
Format	Liquid
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

GENE INFORMATION

Gene Name	GPD1 glycerol-3-phosphate dehydrogenase 1 (soluble) [Homo sapiens (human)]
Official Symbol	GPD1
Synonyms	GPD1; glycerol-3-phosphate dehydrogenase 1 (soluble); GPD-C; HTGT1; GPDH-C; glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic; glycerophosphate dehydrogenase; glycerol-

3-phosphate dehydrogenase [NAD+], cytoplasmic;

Entrez Gene ID	2819
mRNA Refseq	NM_001257199.1
Protein Refseq	NP_001244128.1
UniProt ID	P21695
Chromosome Location	12q13.12
Pathway	Fatty acid, triacylglycerol, and ketone body metabolism, organism-specific biosystem; Glycerophospholipid biosynthesis, organism-specific biosystem; Glycerophospholipid metabolism, organism-specific biosystem; Glycerophospholipid metabolism, conserved biosystem; Metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Phospholipid metabolism, organism-specific biosystem; Synthesis of PA, organism-specific biosystem; Triacylglyceride Synthesis,
Function	NAD binding; glycerol-3-phosphate dehydrogenase [NAD+] activity; glycerol-3-phosphate dehydrogenase activity; protein homodimerization activity;