

# Recombinant Human Glycerol-3-phosphate dehydrogenase 1 (soluble)

**Cat. No.** GPD1-1942H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant human GPD1 protein was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques. 37.5 kDa (349aa).
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	GPD1, also known as glycerol-3-phosphate dehydrogenase, is an enzyme that catalyzes the reduction of dihydroxyacetone phosphate to sn-glycerol 3-phosphate. (sn-glycerol 3-phosphate + NAD <sup>+</sup> = glycerone phosphate + NADH) Older terms for glycerol-3-phosphate dehydrogenase include alpha glycerol-3-phosphate dehydrogenase and glycerolphosphate dehydrogenase. However, GPD1 is not the same as glyceraldehyde 3-phosphate dehydrogenase (GAPDH) whose substrate is an aldehyde not an alcohol.
<b>Purity</b>	> 90% by SDS – PAGE.
<b>Physical Appearance</b>	Liquid.
<b>Formulation</b>	20mM Tris-HCl buffer (pH8.0) containing 10% glycerol.
<b>Concentration</b>	1.0 mg/ml (determined by Bradford assay).
<b>Sequences Of Amino</b>	MASKKVCIVG SGNWGSIAIK IVGGNAAQLA QFDPRTMWV FEEDIGGKKL

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**Acids**

TEIINTQHEN VKYLPGHKLP PNVVAVPDVV QAAEDADILIFVVPHQFIGK  
 ICDQLKGHLK ANATGISLIK GVDEGPNGLK LISEVIGERL GIPMSVLMGA  
 NIASEVADEK FCETTIGCKD PAQGQLLKELMQTPNFRITV VQEVDTVEIC  
 GALKNVVAVG AGFCDGLGFG DNTKAAVIRL GLMEMIAFAK LFCSGPVSSA  
 TFLESCGVAD LITTCYGGRNRKVAEAFART GKSIEQLEKE LLNGQKLQGP  
 ETARELYSIL QHKGLVDKFP LFMVYKVCY EGQPVGEFIH CLQNHPEHM.

**Storage**

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**Pathways**

Glycerophospholipid metabolism; Metabolism of lipids and lipoproteins

## GENE INFORMATION

**Gene Name**

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

**Synonyms**

GPD1; glycerol-3-phosphate dehydrogenase 1 (soluble); FLJ26652; glycerol-3-phosphate dehydrogenase [NAD+], cytoplasmic; GPD-C; GPDH-C; glycerol-3-phosphate dehydrogenase, soluble; EC 1.1.1.8

**Gene ID**

2819

**mRNA Refseq**

NM\_005276

**Protein Refseq**

NP\_005267

**MIM**

138420

**UniProt ID**

P21695

**Chromosome**

12q12-q13

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**Location**

**Function**

NAD or NADH binding; binding; glycerol-3-phosphate dehydrogenase (NAD+) activity; glycerol-3-phosphate dehydrogenase activity; protein homodimerization activity

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