

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

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

SPECIFICATION

Product Overview	Recombinant human GPD1 protein was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques. 37.5 kDa (349aa).
Species	Human
Source	<i>E.coli</i>
Description	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 ⁺ = 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.
Purity	> 90% by SDS – PAGE.
Physical Appearance	Liquid.
Formulation	20mM Tris-HCl buffer (pH8.0) containing 10% glycerol.
Concentration	1.0 mg/ml (determined by Bradford assay).
Sequences Of Amino	MASKKVCIVG SGNWGSIAIK IVGGNAAQLA QFDPRVTMWV FEEDIGGKKL

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Acids	TEIINTQHEN VKYLPGHKLP PNVVAVPDVV QAAEDADILIFVVP HQFIGK ICDQLKGHLK ANATGISLIK GVDEGPNGLK LISEVIGERL GIPMSVLMGA NIASEVADEK FCETTIGCKD PAQGQLLKELMQTPNFRITV VQEVDTVEIC GALKNVVAVG AGFCDGLGFG DNTKAAVIRL GLMEMIAFAK LFCSGPVSSA TFLESCGVAD LITTCYGGNRNRKVAEAFART GKSIEQLEKE LLNGQKLQGP ETARELYSIL QHKGLVDKFP LFMAVYKVCY 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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