

Glycerol-3-phosphate Dehydrogenase [NAD⁺], Cytoplasmic

Human, GPD1

Expressed in *E.Coli*

Cat. No. CBCRY30

Lot. No. (See product label)

BACKGROUND

Homo sapiens L-alpha-glycerol-3-phosphate dehydrogenase 1 (GPD1) catalyzes the reversible biological conversion of dihydroxyacetone (DHAP) to glycerol-3-phosphate. The GPD1 protein was expressed in *Escherichia coli*, and purified as a fusion protein with glutathione S-transferase.

MOLECULAR DESCRIPTION

Protein classification: Oxidoreductase

Structure Weight: 39164.02 Da

Polymer: 1

Molecule: Glycerol-3-phosphate dehydrogenase [NAD⁺], cytoplasmic

Chains: A

Type: polypeptide (L)

Chain Length: 354 amino acids

CRYSTAL INFORMATION

PDB ID: [1X0X](#)

MMDB ID: [38469](#)

Source: *E.Coli*

Method: X-Ray Diffraction

Resolution: 2.75 Å

Ligand Chemical Component: NAD; Sulfate ion

CRYSTAL INFORMATION

[1WPQ](#): Crystal Structure of Homo Sapiens Glycerol-3-Phosphate Dehydrogenase 1 Complexed with NAD and Dihydroxyactone

[1X0V](#): Crystal Structure of Homo Sapiens Glycerol-3-Phosphate Dehydrogenase 1

CRYSTAL STRUCTURE



GENE INFORMATION

Gene Name: [GPD1](#)

Synonyms: FLJ26652; glycerol-3-phosphate dehydrogenase, soluble; glycerol-3-phosphate dehydrogenase 1 (soluble); EC 1.1.1.8; GPD-C; GPDH-C

UniProt ID: [P21695](#)

GeneID: [2819](#)

Chromosome Location: 12q12-q13

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

PRIMARY CITATION

Ou, X., Ji, C., Han, X., Zhao, X., Li, X., Mao, Y., Wong, L.L., Bartlam, M., Rao, Z. (2006) Crystal Structures of Human Glycerol 3-phosphate Dehydrogenase 1 (GPD1) *J.Mol.Biol.* 357: 858-869

FOR RESEARCH USE ONLY

Creative Biostructure. All rights reserved.

45-16 Ramsey Road Shirley, NY 11967, USA
Tel: 1-866-588-6325 · Fax: 1-631-207-8356
E-mail: info@creative-biostructure.com
www.creative-biostructure.com