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## Recombinant human GPD1 protein

Catalog Number: ATGP0486

#### PRODUCT INFORMATION

#### **Expression system**

E.coli

#### **Domain**

1-349aa

#### **UniProt No.**

P21695

#### **NCBI Accession No.**

NP 005267

#### **Alternative Names**

Glycerol-3-phosphate dehydrogenase [NAD+], Glycerol-3-phosphate dehydrogenase [NAD+] AI747587, EC 1.1.1.8, FLJ26652, G3PD, Gdc-1, Gdc1, Gdp1, Glycerol 3 phosphate dehydrogenase 1, Glycerol 3 phosphate dehydrogenase cytosolic, Glycerol 3 phosphate dehydrogenase soluble, Glycerol-3-phosphate dehydrogenase, Glycerol-3-phosphate dehydrogenase [NAD+], cytoplasmic, Glycerol-3-phosphate dehydrogenase 1 (soluble), Glycerol-3-phosphate dehydrogenase, soluble, Glycerphosphate dehydrogenase, GPD-C, Gpd1 protein, GPD2, Gpd3, Gpdc, GPDH, GPDH-C, Gpdhc, KIAA4010, MGC93453, MGPD, mKIAA4010.

## **PRODUCT SPECIFICATION**

#### **Molecular Weight**

37.5 kDa (349aa) confirmed by MALDI-TOF

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

#### **Purity**

> 90% by SDS-PAGE

#### Tag

Non-Tagged

#### **Application**

SDS-PAGE

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## **BACKGROUND**

### **Description**

GPD1, also known as glycerol-3-phosphate dehydrogenase, is an enzyme that catalyzes the reduction of



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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. Recombinant GPD1 protein was expressed in E. coli and purified by using conventional chromatography techniques.

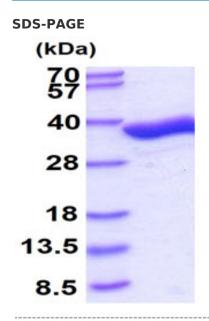
#### **Amino acid Sequence**

MASKKVCIVG SGNWGSAIAK IVGGNAAQLA QFDPRVTMWV FEEDIGGKKL TEIINTQHEN VKYLPGHKLP PNVVAVPDVV QAAEDADILI FVVPHQFIGK ICDQLKGHLK ANATGISLIK GVDEGPNGLK LISEVIGERL GIPMSVLMGA NIASEVADEK FCETTIGCKD PAQGQLLKEL MQTPNFRITV VQEVDTVEIC GALKNVVAVG AGFCDGLGFG DNTKAAVIRL GLMEMIAFAK LFCSGPVSSA TFLESCGVAD LITTCYGGRN RKVAEAFART GKSIEQLEKE LLNGQKLQGP ETARELYSIL QHKGLVDKFP LFMAVYKVCY EGQPVGEFIH CLQNHPEHM

#### **General References**

Albertyn J., et al. (1992) FEBS Lett. 308 (2): 130-2. Ou X., et al. (2006) J. Mol. Biol. 357(3):858-69

### **DATA**



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

