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

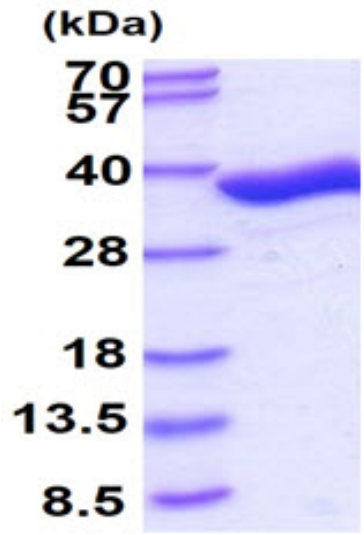
MASKKVCIVG SGNWGSAIAK IVGGNAAQLA QFDPRVTMWV FEEDIGGKKL TEIINTQHEN VKYLPGHKLP PNVVAVPDVV QAAEDADILI FVVPHQFIGK ICDQLKGHLK ANATGISLIK GVDEGPNGLK LISEVIGERL GIPMSVLMGA NIASEVADEK FCETTIGCKD PAQGQLLKEL MQTPNFRITV VQEVDTVEIC GALKNVVAVG AGFCDGLGFG DNTKAAVIRL GLMEMIAFAK LFCSGPVSSA TFLESCGVAD LITTCYGGRN RKVAEAFART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

SDS-PAGE



15% SDS-PAGE (3ug)

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