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# Recombinant human GNPDA1 protein

Catalog Number: ATGP0701

#### PRODUCT INFORMATION

#### **Expression system**

E.coli

#### **Domain**

1-289aa

#### **UniProt No.**

P46926

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

NP 005462

#### **Alternative Names**

Glucosamine-6-phosphate isomerase 1, GNP1, GNPDA, GNPI, GPI, HLN, Oscillin

### PRODUCT SPECIFICATION

#### **Molecular Weight**

34.8 kDa (309aa) confirmed by MALDI-TOF

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol, 50mM NaCl

#### **Purity**

> 90% by SDS-PAGE

#### Tag

His-Tag

#### **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**

Glucosamine-6-phosphate isomerase 1, also known as GNPDA1, catalyzes the conversion of glucosamine-6-phosphate to fructose-6-phosphate, a reaction that under physiological conditions proceeds to the formation of fructose-6-phosphate. It exist is ubiquitously expressed with highest expression in testes, ovary and heart. In addition, GNPDA1 triggers calcium oscillations in mammalian eggs. These oscillations serve as the essential trigger for egg activation and early development of the embryo. Recombinant human GNPDA1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.



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## **Amino acid Sequence**

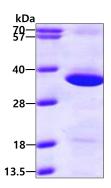
<MGSSHHHHHH SSGLVPRGSH> MKLIILEHYS QASEWAAKYI RNRIIQFNPG PEKYFTLGLP TGSTPLGCYK KLIEYYKNGD LSFKYVKTFN MDEYVGLPRD HPESYHSFMW NNFFKHIDIH PENTHILDGN AVDLQAECDA FEEKIKAAGG IELFVGGIGP DGHIAFNEPG SSLVSRTRVK TLAMDTILAN ARFFDGELTK VPTMALTVGV GTVMDAREVM ILITGAHKAF ALYKAIEEGV NHMWTVSAFQ QHPRTVFVCD EDATLELKVK TVKYFKGLML VHNKLVDPLY SIKEKETEKS QSSKKPYSD

#### **General References**

Wolosker H., et al. (1998) FASEB J. 12(1):91-9. Montag M., et al. (1999) FEBS Lett.458:141-144.

# **DATA**

### **SDS-PAGE**



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

