

Recombinant Human Glucosamine-6-phosphate Deaminase 1, His-tagged

Cat. No. GNPDA1-2810H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant human GNPDA1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. MW = 34.8 kDa (309aa), confirmed by MALDI-TOF.

Species

Human

Source

E.coli

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.

Sequences Of Amino Acids

MGSSHHHHHH SSGLVPRGSH MKLIILEHYS QASEWAAKYI RNRIQFNPG
PEKYFTLGLP TGSTPLGCVK KLIEYYKNGD LSKYVKTFN MDEYVGLPRD
HPESYHSFMW NNFFKHIDH PENTHILDGN AVDLQAECD FEEKIKAAGG
IELFVGGIGP DGHIAFNEPG SSLVSRTRVK TLAMDTILAN ARFFDGELTK
VPTMALTVGV GTVMDAREVM ILITGAHKAF ALYKAIEEGV NHMWTVSAFQ
QHPRTVFVCD EDATLELKVK TVKYFKGLML VHNKLVDPY SIKEKETES
QSSKKPYSD

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Purity	> 90% by SDS – PAGE.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol, 50mM NaCl.
Concentration	1 mg/ml (determined by Bradford assay).
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.

GENE INFORMATION

Gene Name	GNPDA1 glucosamine-6-phosphate deaminase 1 [Homo sapiens]
Synonyms	GNPDA1; glucosamine-6-phosphate deaminase 1; GPI; HLN; GNP1; GNPI; GNPDA; KIAA0060; glucosamine-6-phosphate isomerase 1; GNPDA 1; oscillin; OTTHUMP00000222767; OTTHUMP00000222768; OTTHUMP00000222769; OTTHUMP00000222770; OTTHUMP00000222771; OTTHUMP00000222773; OTTHUMP00000222774; OTTHUMP00000222775; glcN6P deaminase 1; EC 3.5.99.6; glucosamine-6-phosphate isomerase; glucosamine-6-phosphate deaminase
Gene ID	10007
mRNA Refseq	NM_005471
Protein Refseq	NP_005462
MIM	601798
UniProt ID	P46926

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**Chromosome
Location**

5q21

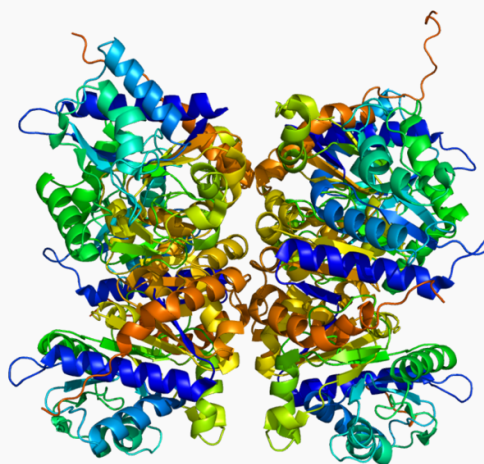
Pathway

Amino sugar and nucleotide sugar metabolism; Metabolic pathways

Function

glucosamine-6-phosphate deaminase activity; hydrolase activity

**PDB rendering based
on 1ne7.**



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