Datasheet for ABIN7548143

GNPDA1 Protein (AA 1-289) (His tag)

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Overview

Quantity:	1 mg
Target:	GNPDA1
Protein Characteristics:	AA 1-289
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GNPDA1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant GNPDA1 Protein expressed in mammalian cells.
Sequence:	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 **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:

Product Details

	• Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	GNPDA1
Alternative Name:	GNPDA1 (GNPDA1 Products)
Background:	Glucosamine-6-phosphate isomerase 1 (EC 3.5.99.6) (Glucosamine-6-phosphate deaminase 1) (GNPDA 1) (GlcN6P deaminase 1) (Oscillin),FUNCTION: Catalyzes the reversible conversion of alpha-D-glucosamine 6-phosphate (GlcN-6P) into beta-D-fructose 6-phosphate (Fru-6P) and ammonium ion, a regulatory reaction step in de novo uridine diphosphate-N-acetyl-alpha-D-glucosamine (UDP-GlcNAc) biosynthesis via hexosamine pathway. Deamination is coupled to aldo-keto isomerization mediating the metabolic flux from UDP-GlcNAc toward Fru-6P. At high ammonium level can drive amination and isomerization of Fru-6P toward hexosamines and UDP-GlcNAc synthesis (PubMed:21807125, PubMed:26887390). Has a role in fine tuning the metabolic fluctuations of cytosolic UDP-GlcNAc and their effects on hyaluronan synthesis that occur during tissue remodeling (PubMed:26887390). Seems to trigger calcium oscillations in mammalian eggs. These oscillations serve as the essential trigger for egg activation and early development of the embryo (By similarity). {ECO:0000250|UniProtKB:Q64422, ECO:0000269|PubMed:21807125, ECO:0000269|PubMed:26887390}.
Molecular Weight:	32.7 kDa

Target Details

UniProt:	P46926

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

