

Datasheet for ABIN3092772

**GNE Protein (AA 1-722) (Strep Tag)****1** Image[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	GNE
Protein Characteristics:	AA 1-722
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GNE protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	MEKNGNNRKL RVCVATCNRA DYSKLAPIMF GIKTEPEFFE LDVVVLGSHL IDDYGN TYRM IEQDDFDINT RLHTIVRGED EAAMVESVGL ALVKLPDVLN RLKPDIMIVH GDRFDALALA TSAALMNIRI LHIEGGEVSG TIDDSIRHAI TKLAHYHVCC TRSAEQHLIS MCEDHDRILL AGCPSYDKLL SAKNKDYMSI IRMWLGDDVK SKDYIVALQH PVTTDIKHSI KMFELTLDAL ISFNKRTLVL FPNIDAGSKE MVRVMRKKGI EHHPNFRAVK HVPFDQFIQL VAHAGCMIGN SSCGVREVGA FGTPVINLGT RQIGRETGEN VLHVRDADTQ DKILQALHLQ FGKQYPCSKI YGDGNAV PRI LKFLKSIDLQ EPLQKKFCFP PVKENISQDI DHILETLSAL AVDLGGTNLR VAIVSMKGEI VKKYTQFNPK TYEERINLIL QMCVEAAAEA VKLNCRILGV GISTGGRVNP REGIVLHSTK LIQEWNSVDL RTPLSDTLHL PVWVDNDGNC AALAERKFGQ GKGLNFVTL ITGTGIGGGI IHQHELIHGS SFCAAELGHL VVSLDGPDCS CGSHGCIEAY ASGMALQREA KKLHDEDL LLL VEGMSVPKDE AVGALHLIQA AKLGNAKAQS ILRTAGTALG LGVWNILHTM NPSLVILSGV LASHYIHIVK DVIRQQALSS VQDQDVVVSD LVDPALLGAA SMVLDYTTTR IY
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**Sequence without tag. The proposed Strep-Tag is based on experience s 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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 will ensure that you receive a correctly folded protein.

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.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

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## Product Details

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## Target Details

Target:	GNE
Alternative Name:	GNE ( <a href="#">GNE Products</a> )
Background:	<p>Bifunctional UDP-N-acetylglucosamine 2-epimerase/N-acetylmannosamine kinase (UDP-GlcNAc-2-epimerase/ManAc kinase) [Includes: UDP-N-acetylglucosamine 2-epimerase (hydrolyzing) (EC 3.2.1.183) (UDP-GlcNAc-2-epimerase) (Uridine diphosphate-N-acetylglucosamine-2-epimerase), N-acetylmannosamine kinase (EC 2.7.1.60) (ManAc kinase)],FUNCTION: Bifunctional enzyme that possesses both UDP-N-acetylglucosamine 2-epimerase and N-acetylmannosamine kinase activities, and serves as the initiator of the biosynthetic pathway leading to the production of N-acetylneuraminic acid (NeuAc), a critical precursor in the synthesis of sialic acids. By catalyzing this pivotal and rate-limiting step in sialic acid biosynthesis, this enzyme assumes a pivotal role in governing the regulation of cell surface sialylation (PubMed:2808337, PubMed:10334995, PubMed:11326336, PubMed:14707127, PubMed:16503651). Sialic acids represent a category of negatively charged sugars that reside on the surface of cells as terminal components of glycoconjugates and mediate important functions in various cellular processes, including cell adhesion, signal transduction, and cellular recognition (PubMed:10334995, PubMed:14707127). {ECO:0000269 PubMed:10334995, ECO:0000269 PubMed:11326336, ECO:0000269 PubMed:14707127, ECO:0000269 PubMed:16503651, ECO:0000269 PubMed:2808337}.</p>
Molecular Weight:	79.3 kDa
UniProt:	<a href="#">Q9Y223</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
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## Application Details

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as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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### Comment:

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### Restrictions:

For Research Use only

## Handling

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### Format:

Liquid

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### Buffer:

The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

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### Handling Advice:

Avoid repeated freeze-thaw cycles.

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### Storage:

-80 °C

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### Storage Comment:

Store at -80°C.

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### Expiry Date:

Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process