Datasheet for ABIN3136804

GNE Protein (AA 1-722) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	GNE
Protein Characteristics:	AA 1-722
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GNE protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MEKNGNNRKL RVCVATCNRA DYSKLAPIMF GIKTEPAFFE LDVVVLGSHL IDDYGNTYRM IEQDDFDINT RLHTIVRGED EAAMVESVGL ALVKLPDVLN RLKPDIMIVH GDRFDALALA TSAALMNIRI LHIEGGEVSG TIDDSIRHAI TKLAHYHVCC TRSAEQHLIS MCEDHDRILL AGCPSYDKLL SAKNKDYMSI IRMWLGDDVK CKDYIVALQH PVTTDIKHSI KMFELTLDAL ISFNKRTLVL FPNIDAGSKE MVRVMRKKGI EHHPNFRAVK HVPFDQFIQL VAHAGCMIGN SSCGVREVGA FGTPVINLGT RQIGRETGEN VLHVRDADTQ DKILQALHLQ FGKQYPCSKI YGDGNAVPRI LKFLKSIDLQ EPLQKKFCFP PVKENISQDI DHILETLSAL AVDLGGTNLR VAIVSMKGEI VKKYTQFNPK TYEERISLIL QMCVEAAAEA VKLNCRILGV GISTGGRVNP QEGVVLHSTK LIQEWNSVDL RTPLSDTLHL PVWVDNDGNC AAMAERKFGQ GKGQENFVTL ITGTGIGGGI IHQHELIHGS SFCAAELGHL VVSLDGPDCS CGSHGCIEAY ASGMALQREA KKLHDEDLLL VEGMSVPKDE AVGALHLIQA AKLGNVKAQS ILRTAGTALG LGVVNILHTM

Product Details

	NPSLVILSGV LASHYIHIVK DVIRQQALSS VQDVDVVVSD LVDPALLGAA SMVLDYTTRR IH **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.**
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • 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 try to ensure that you receive soluble 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 against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	GNE
Alternative Name:	Gne (GNE Products)
Background:	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:11929971). 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 (By similarity). {ECO:0000250|UniProtKB:Q9Y223, ECO:0000269|PubMed:11929971}.
Molecular Weight:	79.2 kDa
UniProt:	Q91WG8

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	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

Application Details

	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!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months