

Datasheet for ABIN3092797
Golgin A2 (GOLGA2) (AA 1-1002) protein (Strep Tag)

1 Image



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Overview

Quantity:	1 mg
Target:	Golgin A2 (GOLGA2)
Protein Characteristics:	AA 1-1002
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Sequence:	MWPQRLPPR PAMSEETRQS KLAAAKKKLR EYQQRNSPGV PTGAKKKKKI KNKSNPETTT SGGCHSPEDT PKDNAATLQP SDDTVLPGGV PSPGASLTSM AASQNHADN VPNLMDETKT FSSTESLRQL SQQNLGLVCE SATCVNGEGP ASSANLKDLE SRYQQLAVAL DSSYVTNKQL NITIEKLKQQ NQEITDQLEE EKKECHQKQG ALREQLQVHI QTIGILVSEK AELQTALAHT QHAARQKEGE SEDLASRLQY SRRRVGELER ALSAVSTQQK KADRYNKELT KERDALRLEL YKNTQSNEDL KQEKSELEEK LRLVLTEKAG MQLNLEELQK KLEMTPELLQ QFSSRCEAPD ANQQLQQAME ERAQLEAHLG QVMESVRQLQ MERDKYAENL KGESAMWRQR MQQMSEQVHT LREEKECSMS RVQELETSLA ELRNQMAEPP PPEPPAGPSE VEQQLQAEAE HLRKELEGLA GQLQAQVQDN EGLSRLNREQ EERLLELERA AELWGEQAEA RRQILETMQN DRTTISRALS QNRELKEQLA ELQSGFVKLT NENMEITSAL QSEQHVKREL GKKLGELQEK LSELKETVEL KSQEAQSLQQ QRDQYLGHQ QYVAAYQQLT SEKEVLHNQL LLQTQLVDQL QQQEAQGKAV AEMARQELQE TQERLEAATQ QNQLLRAQLS LMAHPGEGDG LDREEEEDDEE EEEEEAVAVP
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QPMPSIPEDL ESREAMVAFF NSAVASAEED QARLRGQLKE QRVRCRRLAH LLASAQKEPE
AAAPAPGTGG DSVCGETHRA LQGAMEKLQS RFMELMQEKA DLKERVEELE HRCIQLSGET
DTIGEYIALY QSQRAVLKER HREKEEYISR LAQDKEEMKV KLELQELVL RLVGDRNEWH
GRFLAAQNP ADEPTSGAPA PQELGAANQQ GDLCEVSLAG SVEPAQGEAR EGSPRDNPTA
QQIMQLLREM QNPRERPGLG SNPCIPFFYR ADENDEVKIT VI

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 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

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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®): 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:	Golgin A2 (GOLGA2)
Alternative Name:	GOLGA2 (GOLGA2 Products)
Background:	<p>Golgin subfamily A member 2 (130 kDa cis-Golgi matrix protein) (GM130) (GM130 autoantigen) (Golgin-95),FUNCTION: Peripheral membrane component of the cis-Golgi stack that acts as a membrane skeleton that maintains the structure of the Golgi apparatus, and as a vesicle tether that facilitates vesicle fusion to the Golgi membrane (Probable) (PubMed:16489344). Required for normal protein transport from the endoplasmic reticulum to the Golgi apparatus and the cell membrane (By similarity). Together with p115/USO1 and STX5, involved in vesicle tethering and fusion at the cis-Golgi membrane to maintain the stacked and inter-connected structure of the Golgi apparatus. Plays a central role in mitotic Golgi disassembly: phosphorylation at Ser-37 by CDK1 at the onset of mitosis inhibits the interaction with p115/USO1, preventing tethering of COPI vesicles and thereby inhibiting transport through the Golgi apparatus during mitosis (By similarity). Also plays a key role in spindle pole assembly and centrosome organization (PubMed:26165940). Promotes the mitotic spindle pole assembly by activating the spindle assembly factor TPX2 to nucleate microtubules around the Golgi and capture them to couple mitotic membranes to the spindle: upon phosphorylation at the onset of mitosis, GOLGA2 interacts with importin-alpha via the nuclear localization signal region, leading to recruit importin-alpha to the Golgi membranes and liberate the spindle</p>

Target Details

assembly factor TPX2 from importin- α . TPX2 then activates AURKA kinase and stimulates local microtubule nucleation. Upon filament assembly, nascent microtubules are further captured by GOLGA2, thus linking Golgi membranes to the spindle (PubMed:19242490, PubMed:26165940). Regulates the meiotic spindle pole assembly, probably via the same mechanism (By similarity). Also regulates the centrosome organization (PubMed:18045989, PubMed:19109421). Also required for the Golgi ribbon formation and glycosylation of membrane and secretory proteins (PubMed:16489344, PubMed:17314401). {ECO:0000250|UniProtKB:Q62839, ECO:0000250|UniProtKB:Q921M4, ECO:0000269|PubMed:16489344, ECO:0000269|PubMed:17314401, ECO:0000269|PubMed:18045989, ECO:0000269|PubMed:19109421, ECO:0000269|PubMed:19242490, ECO:0000269|PubMed:26165940, ECO:0000305|PubMed:26363069}.

Molecular Weight: 113.1 kDa

UniProt: [Q08379](#)

Pathways: [SARS-CoV-2 Protein Interactome](#)

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 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. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



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