

Datasheet for ABIN3080621
GCKR Protein (AA 1-625) (Strep Tag)[Go to Product page](#)

1 Image

Overview

| | |
|-------------------------------|---|
| Quantity: | 1 mg |
| Target: | GCKR |
| Protein Characteristics: | AA 1-625 |
| Origin: | Human |
| Source: | Tobacco (Nicotiana tabacum) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This GCKR protein is labelled with Strep Tag. |
| Application: | SDS-PAGE (SDS), Western Blotting (WB), ELISA |

Product Details

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| Sequence: | MPGTKRFQHV IETPEPGKWE LSGYEAAPVI TEKSNPLTQD LDKADAENIV RLLGQCDAEI FQEEGQALST YQRLYSEIL TTMVQVAGKV QEVLKEPDGG LVLSSGGGTS GRMAFLMSVS FNQLMKGLGQ KPLYTYLIAG GDRSVVASRE GTEDSALHGI EELKKVAAGK KRVIVIGISV GLSAPFVAGQ MDCCMNNTAV FLPVLVGFNP VSMARNDPIE DWSSTFRQVA ERMQKMQEKG KAFVLNPAIG PEGLSGSSRM KGGSATKILL ETLLAAHKT VDQGIASQR CLLEILRTFE RAHQVTYSQS PKIATLMKSV STSLEKKGHV YLVGWQTLGI IAIMDGVECI HTFGADFRDV RGFLIGDHSD MFNQKAELTN QGPQFTFSQE DFLTSLPSL TEIDTVVFIF TLDDNLTEVQ TIVEQVKEKT NHIQALAHST VGQTLPIPLK KLFPSISIT WPLFFFEYEG NFIQKFQREL STKWVLNTVS TGAHVLLGKI LQNHMLDLRI SNSKLFWRAL AMLQRFSGQS KARCIESLLR AIHFPQPLSD DIRAAPISCH VQVAHEKEQV IPIALLSLLF RCSITEAQAH LAAAPSVCEA VRSALAGPGQ KRTADPLEIL EPDVQ |
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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.

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®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag

Product Details

- 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.

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| 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

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|-------------------|--|
| Target: | GCKR |
| Alternative Name: | GCKR (GCKR Products) |
| Background: | Glucokinase regulatory protein (GKRP) (Glucokinase regulator),FUNCTION: Regulates glucokinase (GCK) by forming an inactive complex with this enzyme (PubMed:23621087, PubMed:23733961). Acts by promoting GCK recruitment to the nucleus, possibly to provide a reserve of GCK that can be quickly released in the cytoplasm after a meal (PubMed:10456334). The affinity of GCKR for GCK is modulated by fructose metabolites: GCKR with bound fructose 6-phosphate has increased affinity for GCK, while GCKR with bound fructose 1-phosphate has strongly decreased affinity for GCK and does not inhibit GCK activity (PubMed:23621087, PubMed:23733961). {ECO:0000269 PubMed:10456334, ECO:0000269 PubMed:23621087, ECO:0000269 PubMed:23733961}. |
| Molecular Weight: | 68.7 kDa |
| UniProt: | Q14397 |
| Pathways: | Carbohydrate Homeostasis , Regulation of Carbohydrate Metabolic Process , Protein targeting to Nucleus |

Application Details

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| 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 |

Application Details

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

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| 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