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Datasheet for ABIN3119277

SLC22A14 Protein (AA 1-594) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	SLC22A14
Protein Characteristics:	AA 1-594
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC22A14 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MAGEENFKEE LRSQDASRNL NQHEVAGHPH SWSLEMLLRR LRAVHTKQDD KFANLLDAVG
 EFGTFQQLRV ALTFIPSIMS AFFMFADHFV FTAQKPYCNT SWILAVGPHL SKAEQLNLT
 PQAPNGSFLT CFMYLPVPWN LDSIIQFGLN DTDTQCQDGI YPDAKKRSLI NEFDLVCGME
 TKKDTAQIMF MAGLPIGSLI FRLITDKMGR YPAILLSLLG LIIFGFGTAF MNSFHLYLFF
 RFGISQSVVG YAISSISLAT EWLVEGHEHRAH AIILGHCFFA VGAVLLTGIA YSLPHWQLLF
 LVGGILVIPF ISYIWILPES PRWLMMKGGV KEAKQVLCYA ASVNKKTIPS NLLDELQLPR
 KKVTRASVLD FCKNRQLCKV TLVMSCVWFT VSYTYFTLSL RMRELGVSVH FRHVPSIME
 VPARLCCIFL LQQIGRKWSL AVTLLQAIW CLLLLFLPEG EDGLRLKWPR CPATELKSMT
 ILVLMREFS LAATVTVFFL YTAELLPTVL RATGLGLVSL ASVAGAILSL TIISQTPSL PIFLCCVLA
 VAFSLSSLLP ETRDQPLSES LNHSSQIRNK VKDMKTKETS SDDV

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 capture material. Eluate fractions are analyzed by SDS-PAGE.

Product Details

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: SLC22A14

Alternative Name: SLC22A14 ([SLC22A14 Products](#))

Background: Solute carrier family 22 member 14 (Organic cation transporter-like 4) (ORCTL-4),FUNCTION: Riboflavin transporter localized at the inner mitochondrial membrane of the spermatozoa midpiece, which is required for male fertility (By similarity). SLC22A14-mediated riboflavin transport is essential for spermatozoa energy generation and motility: riboflavin is the precursor of FMN and FAD, which are coenzymes of many enzymes in the TCA cycle (the citric acid cycle) in mitochondria (By similarity). Required for sperm motility and normal sperm flagellar structure (By similarity). {ECO:0000250|UniProtKB:Q497L9}.

Molecular Weight: 66.7 kDa

UniProt: [Q9Y267](#)

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

Application Details

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