

Datasheet for ABIN3091982

SLC7A2 Protein (AA 1-658) (Strep Tag)



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1 Image

Overview

Quantity:	0.5 mg
Target:	SLC7A2
Protein Characteristics:	AA 1-658
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC7A2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MIPCRAALTF ARCLIRRKIV TLDSLEDTKL CRCLSTMDLI ALGVGSLTGA GYYVLAGEVA
 KADSGPSIVV SFLIAALASV MAGLCYAEFG ARVPKTGSAY LYTYVTGEL WAFITGWNLI
 LSYVIGTSSV ARAWSGTFDE LLSKQIQFL RTYFRMNYTG LAEYPDFFAV CLILLLAGLL
 SFGVKESAWV NKVFTAVNIL VLLFVMVAGF VKGNVANWKI SEEFLKNISA SAREPPSENG
 TSIYGAGGFM PYGFTGTLAG AATCFYAFVG FDCIATTGEE VRNPQKAIFI GIVTSLLVCF
 MAYFGVSAAL TLMMPYYLLD EKSPLPVAFE YVGWGPAYV VAAGSLCALS TSLLSGIFPM
 PRVIYAMAED GLLFKCLAQI NSKTKTPIIA TLSSGAVAAL MAFLFDLKAL VDMMSIGTLM
 AYSLVAACVL ILRYQPGLSY DQPKCSPEKD GLGSSPRVTS KSESQVTMLQ RQGFSMRTL
 CPSLLPTQQS ASLVSFLVGF LAFLVLGLSV LTTYGVHAI RLEAWSLALL ALFLVLFVAI
 VLTWRQPQN QKQVAFMVPF LPFLPAFSIL VNIYLMVQLS ADTWVRFISI MAIGFLIYFS
 YGIRHSLEGH LRDENNEEDA YPDNVHAAA EKSIAIQANDH HPRNLSSPFI FHEKTSEF

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
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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.

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: SLC7A2

Alternative Name: SLC7A2 ([SLC7A2 Products](#))

Background: Cationic amino acid transporter 2 (CAT-2) (CAT2) (Low affinity cationic amino acid transporter 2) (Solute carrier family 7 member 2),FUNCTION: Functions as a permease involved in the transport of the cationic amino acids (L-arginine, L-lysine, L-ornithine and L-homoarginine), the affinity for its substrates differs between isoforms created by alternative splicing (PubMed:9174363, PubMed:28684763). May play a role in classical or alternative activation of macrophages via its role in arginine transport (By similarity). {ECO:0000250|UniProtKB:P18581, ECO:0000269|PubMed:28684763, ECO:0000269|PubMed:9174363}., FUNCTION: [Isoform 1]: Functions as a permease that mediates the transport of the cationic amino acids (L-arginine, L-lysine, L-ornithine and L-homoarginine). Shows a much higher affinity for L-arginine and L-homoarginine than isoform 2. {ECO:0000269|PubMed:28684763, ECO:0000269|PubMed:9174363}., FUNCTION: [Isoform 2]: Functions as a low-affinity, high capacity permease involved in the transport of the cationic amino acids (L-arginine, L-lysine, L-ornithine and L-homoarginine). {ECO:0000269|PubMed:28684763, ECO:0000269|PubMed:9174363}.

Molecular Weight: 71.7 kDa

UniProt: [P52569](#)

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.

Application Details

Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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