

Datasheet for ABIN3113734
SLC11A1 Protein (AA 1-550) (Strep Tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	SLC11A1
Protein Characteristics:	AA 1-550
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC11A1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MTGDKGPQRL SGSSYGSISS PTSPTSPGPQ QAPPRETYLS EKIPIPDTKP GTFSLRKLWA FTGPGFLMSI AFLDPGNIES DLQAGAVAGF KLLWVLLWAT VLGLLCQRLA ARLGVVTGKD LGEVCHLYYP KVPRTVLWLT IELAIVGSDM QEVIGTIAIF NLLSAGRIPL WGGVLITIVD TFFFLFDNY GLRKLEAFFG LLITIMALTF GYEVVVARPE QGALLRGLFL PSCPGCGHPE LLQAVGIVGA IIMPHNIYLH SALVKSREID RARRADIREA NMYFLIEATI ALSVSFIINL FVMAVFGQAF YQKTNQAAFN ICANSSLHDY AKIFPMNNAT VAVDIYQGGV ILGCLFGPAA LYIWAIGLLA AGQSSTMTGT YAGQFVMEGF LRLRWSRFAR VLLTRSCAIL PTVLVAVFRD LRDLSGLNDL LNVLQSLLLP FAVLPILTFT SMPTLMQEFA NGLLNKVTS SIMVLVCAIN LYFVVSYP LPHPAYFGLA ALLAAAYLGL STYLVWTCCL AHGATFLAHS SHHHFLYGLL EEDQKGETSG
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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 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:	SLC11A1
Alternative Name:	SLC11A1 (SLC11A1 Products)
Background:	Natural resistance-associated macrophage protein 1 (NRAMP 1) (Solute carrier family 11 member 1),FUNCTION: Macrophage-specific antiporter that fluxes metal ions in either direction against a proton gradient. Localized to late endosomal lysosomal membranes, delivers bivalent cations from the cytosol into these acidic compartments where they may directly affect antimicrobial activity (PubMed:11237855). Involved in iron metabolism and host natural resistance to infection with intracellular parasites. Pathogen resistance involves sequestration of Fe(2+) and Mn(2+), cofactors of both prokaryotic and eukaryotic catalases and superoxide dismutases, not only to protect the macrophage against its own generation of reactive oxygen species, but to deny the cations to the pathogen for synthesis of its protective enzymes (Probable). {ECO:0000269 PubMed:11237855, ECO:0000305 PubMed:16103355, ECO:0000305 PubMed:16395392}.
Molecular Weight:	59.9 kDa
UniProt:	P49279
Pathways:	Transition Metal Ion Homeostasis , Production of Molecular Mediator of Immune Response , Protein targeting to Nucleus

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

Application Details

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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