

Datasheet for ABIN3107449

SLC39A9 Protein (AA 1-307) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	SLC39A9
Protein Characteristics:	AA 1-307
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC39A9 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MDDFISISLL SLAMLVGCYV AGIPLAVNF SEERLKLTV LGAGLLCGTA LAVIVPEGVH ALYEDILEGK HHQASETHNV IASDKAAEKS VVHEHEHSHD HTQLHAYIGV SLVLGFVFM LVDQIGNSHV HSTDDPEAAR SSNSKITTTL GLVHAAADG VALGAAASTS QTSVQLIVFV AIMLHKAPAA FGLVSFLMHA GLERNRIRKH LLVFALAAPV MSMVTYLGLS KSSKEALSEV NATGVAMLFS AGTFLYVATV HVLPEVGGIG HSHKPDATGG RGLSRLEVAA LVLGCLIPLI LSVGHQH</p> <p>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.</p>
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none">• 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.
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.

Product Details

Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade: Crystallography grade

Target Details

Target: SLC39A9

Alternative Name: SLC39A9 ([SLC39A9 Products](#))

Background: Zinc transporter ZIP9 (Solute carrier family 39 member 9) (Zrt- and Irt-like protein 9) (ZIP-9),FUNCTION: Transports zinc ions across cell and organelle membranes into the cytoplasm and regulates intracellular zinc homeostasis (PubMed:25014355, PubMed:19420709, PubMed:28219737). Participates in the zinc ions efflux out of the secretory compartments (PubMed:19420709). Regulates intracellular zinc level, resulting in the enhancement of AKT1 and MAPK3/MAPK1 (Erk1/2) phosphorylation in response to the BCR activation (PubMed:23505453). Also functions as a membrane androgen receptor that mediates, through a G protein, the non-classical androgen signaling pathway, characterized by the activation of MAPK3/MAPK1 (Erk1/2) and transcription factors CREB1 or ATF1 (By similarity). This pathway contributes to CLDN1 and CLDN5 expression and tight junction formation between adjacent Sertoli cells (By similarity). Mediates androgen-induced vascular endothelial cell proliferation through activation of an inhibitory G protein leading to the AKT1 and MAPK3/MAPK1 (Erk1/2) activation which in turn modulate inhibition (phosphorylation) of GSK3B and CCND1 transcription (PubMed:34555425). Moreover, has dual functions as a membrane-bound androgen receptor and as an androgen-dependent zinc transporter both of which are mediated through an inhibitory G protein (Gi) that mediates both MAP kinase and zinc signaling leading to the androgen-dependent apoptotic process (PubMed:25014355, PubMed:28219737). {ECO:0000250|UniProtKB:Q3KR82, ECO:0000250|UniProtKB:Q8BFU1, ECO:0000269|PubMed:19420709, ECO:0000269|PubMed:23505453, ECO:0000269|PubMed:25014355, ECO:0000269|PubMed:28219737, ECO:0000269|PubMed:34555425}.

Molecular Weight: 32.3 kDa

UniProt: [Q9NUM3](#)

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

Application Details

	guarantee though.
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)



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