

Datasheet for ABIN3118336

## SLC40A1 Protein (AA 1-571) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	SLC40A1
Protein Characteristics:	AA 1-571
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC40A1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MTRAGDHNQRQ RGCCGSLADY LTSAKFLLYL GHSLSTWGDR MWHFAVSVFL VELYGNSLLL</p> <p>TAVYGLVVAG SVLVLGAIIG DWVDKNARLK VAQTSLVVQN VSVILCGIIL MMVFLHKHEL</p> <p>LTMYHGWVLT SCYILIITIA NIANLASTAT AITIQRDWIV VVAGEDRSKL ANMNATIRRI</p> <p>DQLTNILAPM AVGQIMTFGS PVIGCGFISG WNLVSMCVEY VLLWKVYQKT PALAVKAGLK</p> <p>EEETELKQLN LHKDTEPKPL EGTMLMGVKD SNIHELEHEQ EPTCASQMAE PFRTFRDGVV</p> <p>SYYNQPVFLA GMGLAFLYMT VLGFDCTTGG YAYTQGLSGS ILSILMGASA ITGIMGTVAF</p> <p>TWLRRKCGLV RTGLISGLAQ LSCLILCVIS VFMPGSPDL SVSPFEDIRS RFIQGESITP TKIPEITTEI</p> <p>YMSNGSNSAN IVPETSPESV PIISVSLFAG VIAARIGLW SFDLTVTQLL QENVIESERG</p> <p>IINGVQNSMN YLLDLLHFIM VILAPNPEAF GLLVLISVSF VAMGHIMYFR FAQNTLGKGL</p> <p>FACGPDAKEV RKENQANTSV V</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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

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### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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### Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

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### Grade:

custom-made

## Target Details

Target:	SLC40A1
Alternative Name:	SLC40A1 ( <a href="#">SLC40A1 Products</a> )
Background:	<p>Solute carrier family 40 member 1 (Ferroportin-1) (Iron-regulated transporter 1),FUNCTION: Transports Fe(2+) from the inside of a cell to the outside of the cell, playing a key role for maintaining systemic iron homeostasis (PubMed:15692071, PubMed:24304836, PubMed:22178646, PubMed:29599243, PubMed:30247984, PubMed:22682227, PubMed:29237594). Transports iron from intestinal, splenic, hepatic cells, macrophages and erythrocytes into the blood to provide iron to other tissues (By similarity). Controls therefore dietary iron uptake, iron recycling by macrophages and erythrocytes, and release of iron stores in hepatocytes (By similarity). When iron is in excess in serum, circulating HAMP/hepcidin levels increase resulting in a degradation of SLC40A1, thus limiting the iron efflux to plasma (PubMed:22682227, PubMed:29237594, PubMed:32814342).</p> <p>{ECO:0000250 UniProtKB:Q9JHI9, ECO:0000269 PubMed:15692071, ECO:0000269 PubMed:22178646, ECO:0000269 PubMed:22682227, ECO:0000269 PubMed:24304836, ECO:0000269 PubMed:29237594, ECO:0000269 PubMed:29599243, ECO:0000269 PubMed:30247984, ECO:0000269 PubMed:32814342}.</p>
Molecular Weight:	62.5 kDa
UniProt:	<a href="#">Q9NP59</a>
Pathways:	<a href="#">Transition Metal Ion Homeostasis</a>

## 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:	<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</p>

## Application Details

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Restrictions: For Research Use only

## Handling

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months