

Datasheet for ABIN7554600

## SLC16A1 Protein (AA 1-500) (His tag)



[Go to Product page](#)

### Overview

Quantity:	1 mg
Target:	SLC16A1
Protein Characteristics:	AA 1-500
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC16A1 protein is labelled with His tag.

### Product Details

Purpose:	Custom-made recombinant SLC16A1 Protein expressed in mammalian cells.
Sequence:	<p>MPPAVGGPVG YTPPDGGWGW AVVIGAFISI GFSYAFPKSI TVFFKEIEGI FHATTSEVSW</p> <p>ISSIMLAVMY GGGPISSILV NKYGSRIVMI VGGCLSGCGL IAASFCNTVQ QLYVCIGVIG</p> <p>GLGLAFNLNP ALTMIGKYFY KRRPLANGLA MAGSPVFLCT LAPLNQVFFG IFGWRGSFLLI</p> <p>LGGLLLNCCV AGALMRPIGP KPTKAGKDKS KASLEKAGKS GVKKDLHDAN TDLIGRHPKQ</p> <p>EKRSVFQTIN QFLDLTLFTH RGFLLYLSGN VIMFFGLFAP LVFLSSYGKS QHYSSEKSAF</p> <p>LLSILAFVDM VARPSMGLVA NTKPIRPRIQ YFFAASVVAN GVCHMLAPLS TTYVGFCVYA</p> <p>GFFGFAFGWL SSVLFETLMD LVGPQRFSSA VGLVTIVECC PVLLGPPLLG RLNDMYGDYK</p> <p>YTYWACGVVL IISGIYLFIG MGINYRLLAK EQKANEQKKE SKEEETSIDV AGKPNEVTKA</p> <p>AESPDQKDTD GGPKEEESPV <b>Sequence without tag. The proposed Purification-Tag is based on experiences 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.</b></p>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

## Product Details

---

isoform, please contact us regarding an individual offer.

### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

### Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

### Grade:

custom-made

## Target Details

---

### Target:

SLC16A1

### Alternative Name:

SLC16A1 ([SLC16A1 Products](#))

### Background:

Monocarboxylate transporter 1 (MCT 1) (Solute carrier family 16 member 1),FUNCTION: Bidirectional proton-coupled monocarboxylate transporter (PubMed:12946269, PubMed:33333023, PubMed:32946811). Catalyzes the rapid transport across the plasma membrane of many monocarboxylates such as lactate, pyruvate, acetate and the ketone bodies acetoacetate and beta-hydroxybutyrate, and thus contributes to the maintenance of intracellular pH (PubMed:12946269, PubMed:33333023). The transport direction is determined by the proton motive force and the concentration gradient of the substrate monocarboxylate. MCT1 is a major lactate exporter (By similarity). Plays a role in cellular responses to a high-fat diet by modulating the cellular levels of lactate and pyruvate that contribute to the regulation of central metabolic pathways and insulin secretion, with concomitant effects on plasma insulin levels and blood glucose homeostasis (By similarity). Facilitates the protonated monocarboxylate form of succinate export, that its transient protonation upon muscle cell

## Target Details

acidification in exercising muscle and ischemic heart (PubMed:32946811). Functions via alternate outward- and inward-open conformation states. Protonation and deprotonation of 309-Asp is essential for the conformational transition (PubMed:33333023).

{ECO:0000250|UniProtKB:P53986, ECO:0000250|UniProtKB:P53987, ECO:0000269|PubMed:12946269, ECO:0000269|PubMed:32946811, ECO:0000269|PubMed:33333023}.

Molecular Weight:	53.9 kDa
-------------------	----------

UniProt:	<a href="#">P53985</a>
----------	------------------------

Pathways:	<a href="#">Warburg Effect</a>
-----------	--------------------------------

## Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
--------------------	---

Restrictions:	For Research Use only
---------------	-----------------------

## Handling

Format:	Liquid
---------	--------

Buffer:	The buffer composition is at the discretion of the manufacturer.
---------	--

Handling Advice:	Avoid repeated freeze-thaw cycles.
------------------	------------------------------------

Storage:	-80 °C
----------	--------

Storage Comment:	Store at -80°C.
------------------	-----------------

Expiry Date:	12 months
--------------	-----------