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Datasheet for ABIN7553766

**SLC1A1 Protein (AA 1-524) (His tag)**

## Overview

Quantity:	1 mg
Target:	SLC1A1
Protein Characteristics:	AA 1-524
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC1A1 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant SLC1A1 Protein expressed in mammalian cells.
Sequence:	MGKPARKGCE WKRFLKNNWV LLSTVAAVVL GITTGVLVRE HSNLSTLEKF YFAFPGEILM RMLKLILPL IISSMITGVA ALDSNVSGKI GLRAVVYYFC TTLIAVILGI VLVVSIKPGV TQKVGEIART GSTPEVSTVD AMLDLIRNMF PENLVQACFQ QYKTKREEVK PPSDPEMNMT EESFTAVMTT AISKNKTKKEY KIVGMYS DGI NVLGLIVFCL VFGLVIGKMG EKGQILVDFE NALSDATMKI VQIIMCYMPL GILFLIAGKI IEVEDWEIFR KLGLYMATVL TGLAIHSIVI LPLIYFIVVR KNPFRFAMGM AQALLTALMI SSSSATLPVT FRCAEENNVQ DKRITRFVLP VGATINMDGT ALYEAVA AVF IAQLNDLDLG IGQIITISIT ATSASIGAAG VPQAGLV TMV IVLSAVGLPA EDVTLIIAVD WLLDRFR TMV NVLGD AFGTG IVEKLSK KEL EQMDVSSEVN IVNPFAL EST ILDNEDSDTK KSYVNGGFAV DKSDTISFTQ TSQF <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>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

## Product Details

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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

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### Target:

SLC1A1

### Alternative Name:

SLC1A1 ([SLC1A1 Products](#))

### Background:

Excitatory amino acid transporter 3 (Excitatory amino-acid carrier 1) (Neuronal and epithelial glutamate transporter) (Sodium-dependent glutamate/aspartate transporter 3) (Solute carrier family 1 member 1),FUNCTION: Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7914198, PubMed:7521911, PubMed:8857541, PubMed:26690923, PubMed:21123949, PubMed:33658209). Can also transport L-cysteine (PubMed:21123949). Functions as a symporter that transports one amino acid molecule together with two or three Na(+) ions and one proton, in parallel with the counter-transport of one K(+) ion (PubMed:7521911, PubMed:8857541, PubMed:26690923, PubMed:33658209). Mediates Cl(-) flux that is not coupled to amino acid transport, this avoids the accumulation of negative charges due to aspartate and Na(+) symport (PubMed:8857541, PubMed:26690923). Plays an important role in L-glutamate and L-aspartate reabsorption in renal tubuli (PubMed:21123949). Plays a

## Target Details

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redundant role in the rapid removal of released glutamate from the synaptic cleft, which is essential for terminating the postsynaptic action of glutamate (By similarity). Contributes to glutathione biosynthesis and protection against oxidative stress via its role in L-glutamate and L-cysteine transport (By similarity). Negatively regulated by ARL6IP5 (By similarity).

{ECO:0000250|UniProtKB:P51906, ECO:0000250|UniProtKB:P51907, ECO:0000269|PubMed:21123949, ECO:0000269|PubMed:26690923, ECO:0000269|PubMed:33658209, ECO:0000269|PubMed:7521911, ECO:0000269|PubMed:7914198, ECO:0000269|PubMed:8857541}.

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Molecular Weight: 57.1 kDa

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UniProt: [P43005](#)

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Pathways: [Dicarboxylic Acid Transport](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months