

# Datasheet for ABIN7561345 SLC38A3 Protein (AA 1-505) (His tag)



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Quantity:	1 mg
Target:	SLC38A3
Protein Characteristics:	AA 1-505
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC38A3 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details	
Purpose:	Custom-made recombinat Slc38a3 Protein expressed in mammalien cells.
Sequence:	MEIPRQTEMV ELVPNGKHLE GLLPVGVPTT DTQRTEDTQH CGEGKGFLQK SPSKEPHFTD
	FEGKTSFGMS VFNLSNAIMG SGILGLAYAM ANTGIILFLF LLTAVALLSS YSIHLLLKSS
	GIVGIRAYEQ LGYRAFGTPG KLAAALAITL QNIGAMSSYL YIIKSELPLV IQTFLNLEKP
	ASVWYMDGNY LVILVSVTII LPLALMRQLG YLGYSSGFSL SCMVFFLIAV IYKKFQVPCP
	LAHNLANATG NFSHMVVAEE KAQLQGEPDT AAEAFCTPSY FTLNSQTAYT IPIMAFAFVC
	HPEVLPIYTE LKDPSKRKMQ HISNLSIAVM YVMYFLAALF GYLTFYDGVE SELLHTYSKV
	DPFDVLILCV RVAVLIAVTL TVPIVLFPVR RAIQQMLFQN QEFSWLRHVL IATGLLTCIN
	LLVIFAPNIL GIFGIIGATS APCLIFIFPA IFYFRIMPTD KEPARSTPKI LALCFAAVGF LLMTMSLSF
	IIDWVSGTSQ HGGNH 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.

## **Product Details**

### Characteristics:

Key Benefits:

- Made to order protein from design to production by highly experienced protein experts.
- · Protein expressed in mammalien 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, Western Blot

Grade:

custom-made

# **Target Details**

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SLC38A3

Alternative Name:

Slc38a3 (SLC38A3 Products)

# Background:

Sodium-coupled neutral amino acid transporter 3 (N-system amino acid transporter 1) (Na(+)-coupled neutral amino acid transporter 3) (Solute carrier family 38 member 3) (mNAT) (System N amino acid transporter 1),FUNCTION: Symporter that cotransports specific neutral amino acids and sodium ions, coupled to an H(+) antiporter activity (PubMed:30017230, PubMed:18689705, PubMed:29561757, PubMed:15899884, PubMed:16249471, PubMed:10716701). Mainly participates in the glutamate-GABA-glutamine cycle in brain where it transports L-glutamine from astrocytes in the intercellular space for the replenishment of both neurotransmitters glutamate and gamma-aminobutyric acid (GABA) in neurons and also functions as the major influx transporter in ganglion cells mediating the uptake of glutamine (PubMed:30017230, PubMed:29561757, PubMed:18689705). The transport activity is specific for L-glutamine, L-histidine and L-asparagine (PubMed:16249471, PubMed:10716701, PubMed:15899884, PubMed:18689705, PubMed:29561757, PubMed:30017230). The transport is electroneutral coupled to the cotransport of 1 Na(+) and the antiport of 1 H(+) (By similarity).

The transport is pH dependent, saturable, Li(+) tolerant and functions in both direction depending on the concentration gradients of its substrates and cotransported ions (PubMed:16249471, PubMed:10716701, PubMed:18689705). Also mediates an amino acidgated H(+) conductance that is not stoichiometrically coupled to the amino acid transport but which influences the ionic gradients that drive the amino acid transport (By similarity). In addition, may play a role in nitrogen metabolism, amino acid homeostasis, glucose metabolism and renal ammoniagenesis (PubMed:26490457). {ECO:0000250|UniProtKB:Q9JHZ9, ECO:0000269|PubMed:10716701, ECO:0000269|PubMed:15899884, ECO:0000269|PubMed:16249471, ECO:0000269|PubMed:18689705,

ECO:0000269|PubMed:26490457, ECO:0000269|PubMed:29561757,

ECO:0000269|PubMed:30017230}.

Molecular Weight:

55.6 kDa

UniProt:

Q9DCP2

# **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.

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	