

Datasheet for ABIN7555347
SLC22A2 Protein (AA 1-555) (His tag)



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Overview

Quantity:	1 mg
Target:	SLC22A2
Protein Characteristics:	AA 1-555
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC22A2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SLC22A2 Protein expressed in mammalian cells.
Sequence:	MPTTVDDVLE HGGEFHFFQK QMFFLLALLS ATFAPIYVGI VFLGFTPDHR CRSPGVAELS LRCGWSPAEE LNYTVPGGP AGEASPRQCR RYEVDWNQST FDCVDPLASL DTNRSRLPLG PCRDGWVYET PGSSIVTEFN LVCANSWMLD LFQSSVNVGF FIGSMSIGYI ADRFGRKLCL LTTVLINAAA GVLMAISPTY TWMLIFRLIQ GLVSKAGWLI GYLITEFVG RRYRRTVGIF YQVAYTVGLL VLAGVAYALP HWRWLQFTVS LPNFFFLYY WCIPESPRWL ISQNKNAEAM RIIKHIAKKN GKSLPASLQR LRLEEETGKK LNPSFLDLVR TPQIRKHTMI LMYNWFTSSV LYQGLIMHMG LAGDNIYLDY FYSALVEFPA AFMIILTIDR IGRYPWAAS NMVAGAACLA SVFIPGDLQW LKIIISCLGR MGITMAYEIV CLVNAELYPT FIRNLGVHIC SSMCDIGGII TPFLVYRLTN IWLELPLMVF GVLGLVAGGL VLLLPEKTKGK ALPETIEEAE NMQRPRKNKE KMIYLQVQKL DIPLN 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

Specificity: If you are looking for a specific domain and are interested in a partial protein or a different 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: SLC22A2

Alternative Name: SLC22A2 ([SLC22A2 Products](#))

Background: Solute carrier family 22 member 2 (Organic cation transporter 2) (hOCT2),FUNCTION: Electrogenic voltage-dependent transporter that mediates the transport of a variety of organic cations such as endogenous bioactive amines, cationic drugs and xenobiotics (PubMed:9260930, PubMed:9687576). Functions as a Na(+)-independent, bidirectional uniporter (PubMed:9687576, PubMed:21128598). Cation cellular uptake or release is driven by the electrochemical potential, i.e. membrane potential and concentration gradient (PubMed:9260930, PubMed:9687576, PubMed:15212162). However, may also engage electroneutral cation exchange when saturating concentrations of cation substrates are reached (By similarity). Predominantly expressed at the basolateral membrane of hepatocytes and proximal tubules and involved in the uptake and disposition of cationic compounds by hepatic and renal clearance from the blood flow (PubMed:15783073). Implicated in monoamine

Target Details

neurotransmitters uptake such as histamine, dopamine, adrenaline/epinephrine, noradrenaline/norepinephrine, serotonin and tyramine, thereby supporting a physiological role in the central nervous system by regulating interstitial concentrations of neurotransmitters (PubMed:9687576, PubMed:16581093, PubMed:17460754). Also capable of transporting dopaminergic neuromodulators cyclo(his-pro), salsolinol and N-methyl-salsolinol, thereby involved in the maintenance of dopaminergic cell integrity in the central nervous system (PubMed:17460754). Mediates the bidirectional transport of acetylcholine (ACh) at the apical membrane of ciliated cell in airway epithelium, thereby playing a role in luminal release of ACh from bronchial epithelium (PubMed:15817714). Also transports guanidine and endogenous monoamines such as vitamin B1/thiamine, creatinine and N-1-methylnicotinamide (NMN) (PubMed:9260930, PubMed:12089365, PubMed:15212162, PubMed:17072098, PubMed:24961373). Mediates the uptake and efflux of quaternary ammonium compound choline (PubMed:9260930). Mediates the bidirectional transport of polyamine agmatine and the uptake of polyamines putrescine and spermidine (PubMed:12538837, PubMed:21128598). Able to transport non-amine endogenous compounds such as prostaglandin E2 (PGE2) and prostaglandin F2-alpha (PGF2-alpha) (PubMed:11907186). Also involved in the uptake of xenobiotic 4-(4-(dimethylamino)styryl)-N-methylpyridinium (ASP) (PubMed:12395288, PubMed:16394027). May contribute to regulate the transport of organic compounds in testis across the blood-testis-barrier (Probable). {ECO:0000250|UniProtKB:Q9R0W2, ECO:0000269|PubMed:11907186, ECO:0000269|PubMed:12089365, ECO:0000269|PubMed:12395288, ECO:0000269|PubMed:12538837, ECO:0000269|PubMed:15212162, ECO:0000269|PubMed:15783073, ECO:0000269|PubMed:15817714, ECO:0000269|PubMed:16394027, ECO:0000269|PubMed:16581093, ECO:0000269|PubMed:17072098, ECO:0000269|PubMed:17460754, ECO:0000269|PubMed:21128598, ECO:0000269|PubMed:24961373, ECO:0000269|PubMed:9260930, ECO:0000269|PubMed:9687576, ECO:0000305|PubMed:35307651}., FUNCTION: [Isoform 2]: In contrast with isoform 1, not able to transport guanidine, creatinine, cimetidine and metformin. {ECO:0000269|PubMed:12089365, ECO:0000269|PubMed:15212162, ECO:0000269|PubMed:16272756}.

Molecular Weight: 62.6 kDa

UniProt: [O15244](#)

Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for

Application Details

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
