Datasheet for ABIN7555346

SLC22A1 Protein (AA 1-554) (His tag)

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Overview

Quantity:	1 mg
Target:	SLC22A1
Protein Characteristics:	AA 1-554
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC22A1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SLC22A1 Protein expressed in mammalian cells.
Sequence:	MPTVDDILEQ VGESGWFQKQ AFLILCLLSA AFAPICVGIV FLGFTPDHHC QSPGVAELSQ RCGWSPAEEL NYTVPGLGPA GEAFLGQCRR YEVDWNQSAL SCVDPLASLA TNRSHLPLGP CQDGWVYDTP GSSIVTEFNL VCADSWKLDL FQSCLNAGFL FGSLGVGYFA DRFGRKLCLL GTVLVNAVSG VLMAFSPNYM SMLLFRLLQG LVSKGNWMAG YTLITEFVGS GSRRTVAIMY QMAFTVGLVA LTGLAYALPH WRWLQLAVSL PTFLFLLYYW CVPESPRWLL SQKRNTEAIK IMDHIAQKNG KLPPADLKML SLEEDVTEKL SPSFADLFRT PRLRKRTFIL MYLWFTDSVL YQGLILHMGA TSGNLYLDFL YSALVEIPGA FIALITIDRV GRIYPMAMSN LLAGAACLVM IFISPDLHWL NIIIMCVGRM GITIAIQMIC LVNAELYPTF VRNLGVMVCS SLCDIGGIIT PFIVFRLREV WQALPLILFA VLGLLAAGVT LLLPETKGVA LPETMKDAEN LGRKAKPKEN TIYLKVQTSE PSGT **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:	SLC22A1
Alternative Name:	SLC22A1 (SLC22A1 Products)
Background:	Solute carrier family 22 member 1 (Organic cation transporter 1) (hOCT1),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:9187257, PubMed:11388889, PubMed:9655880, PubMed:11408531, PubMed:15389554, PubMed:16263091, PubMed:16272756, PubMed:16581093, PubMed:19536068, PubMed:21128598, PubMed:23680637, PubMed:24961373, PubMed:34040533, PubMed:12439218, PubMed:12719534). Functions as a pH - and Na(+)-independent, bidirectional transporter (By similarity). Cation cellular uptake or release is driven by the electrochemical potential (i.e. membrane potential and concentration gradient) and substrate selectivity (By similarity). Hydrophobicity is a major requirement for recognition in polyvalent substrates and inhibitors (By similarity). Primarily 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 (By similarity). Most likely functions as an uptake carrier in enterocytes contributing to the intestinal elimination of organic cations from the systemic circulation (PubMed:16263091). Transports endogenous monoamines such as N-1-methylnicotinamide (NMN), guanidine, histamine, neurotransmitters dopamine, serotonin and adrenaline (PubMed:9260930, PubMed:24961373, PubMed:35469921, PubMed:12439218). Also transports natural polyamines such as spermidine, agmatine and putrescine at low affinity, but relatively high turnover (PubMed:21128598). Involved in the hepatic uptake of vitamin B1/thiamine, hence regulating hepatic lipid and energy metabolism (PubMed:24961373). 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). Transports dopaminergic neuromodulators cyclo(his-pro) and salsolinol with lower efficency (PubMed:17460754). Also capable of transporting non-amine endogenous compounds such as prostaglandin E2 (PGE2) and prostaglandin F2-alpha (PGF2-alpha) (PubMed:11907186). May contribute to the transport of cationic compounds in testes across the blood-testis-barrier (Probable). Also involved in the uptake of xenobiotics tributylmethylammonium (TBuMA), quinidine, N-methyl-quinine (NMQ), N-methyl-quinidine (NMQD) N-(4,4-azo-n-pentyl)-quinuclidine (APQ), azidoprocainamide methoiodide (AMP), N-(4,4-azo-n-pentyl)-21-deoxyajmalinium (APDA) and 4-(4-(dimethylamino)styryl)-N-methylpyridinium (ASP) (PubMed:9260930, PubMed:11408531, PubMed:15389554, PubMed:35469921). {ECO:0000250|UniProtKB:O08966, ECO:0000250|UniProtKB:Q63089, ECO:0000269|PubMed:11388889, ECO:0000269|PubMed:11408531, ECO:0000269|PubMed:11907186, ECO:0000269|PubMed:12439218, ECO:0000269|PubMed:12719534, ECO:0000269|PubMed:15389554, ECO:0000269|PubMed:15817714, ECO:0000269|PubMed:16263091, ECO:0000269|PubMed:16272756, ECO:0000269|PubMed:16581093, ECO:0000269|PubMed:17460754, ECO:0000269|PubMed:19536068, ECO:0000269|PubMed:21128598, ECO:0000269|PubMed:23680637, ECO:0000269|PubMed:24961373, ECO:0000269|PubMed:34040533, ECO:0000269|PubMed:35469921, ECO:0000269|PubMed:9187257, ECO:0000269|PubMed:9260930, ECO:0000269|PubMed:9655880, ECO:0000305|PubMed:35307651}., FUNCTION: [Isoform 1]: Mediates the uptake of 1-methyl-4-phenylpyridinium (MPP(+)). {ECO:0000269|PubMed:11388889}., FUNCTION: [Isoform 2]: Not able to uptake 1-methyl-4-phenylpyridinium (MPP(+)). {ECO:0000269|PubMed:11388889}., FUNCTION: [Isoform 3]: Not able to uptake 1-methyl-4-phenylpyridinium (MPP(+)).

Target Details

	{ECO:0000269|PubMed:11388889}., FUNCTION: [Isoform 4]: Not able to uptake 1-methyl-4-phenylpyridinium (MPP(+)). {ECO:0000269|PubMed:11388889}.
Molecular Weight:	61.2 kDa
UniProt:	O15245
Pathways:	Hormone Transport

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

