Datasheet for ABIN7554916

SLC46A1 Protein (AA 1-459) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	SLC46A1
Protein Characteristics:	AA 1-459
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC46A1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat SLC46A1 Protein expressed in mammalien cells.
Sequence:	MEGSASPPEK PRARPAAAVL CRGPVEPLVF LANFALVLQG PLTTQYLWHR FSADLGYNGT RQRGGCSNRS ADPTMQEVET LTSHWTLYMN VGGFLVGLFS STLLGAWSDS VGRRPLLVLA SLGLLLQALV SVFVVQLQLH VGYFVLGRIL CALLGDFGGL LAASFASVAD VSSSRSRTFR MALLEASIGV AGMLASLLGG HWLRAQGYAN PFWLALALLI AMTLYAAFCF GETLKEPKST RLFTFRHHRS IVQLYVAPAP EKSRKHLALY SLAIFVVITV HFGAQDILTL YELSTPLCWD SKLIGYGSAA QHLPYLTSLL ALKLLQYCLA DAWVAEIGLA FNILGMVVFA FATITPLMFT GYGLLFLSLV ITPVIRAKLS KLVRETEQGA LFSAVACVNS LAMLTASGIF NSLYPATLNF MKGFPFLLGA GLLLIPAVLI GMLEKADPHL EFQQFPQSP **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

Target:	SLC46A1
Alternative Name:	SLC46A1 (SLC46A1 Products)
Background:	Proton-coupled folate transporter (HsPCFT) (hPCFT) (Heme carrier protein 1) (PCFT/HCP1) (Solute carrier family 46 member 1),FUNCTION: Proton-coupled folate symporter that mediates folate absorption using an H(+) gradient as a driving force (PubMed:17129779, PubMed:17446347, PubMed:17475902, PubMed:19389703, PubMed:19762432, PubMed:25504888, PubMed:30858177, PubMed:31792273, PubMed:34619546, PubMed:29344585, PubMed:31494288, PubMed:32893190). Involved in the intestinal absorption of folates at the brush-border membrane of the proximal jejunum, and the transport from blood to cerebrospinal fluid across the choroid plexus (PubMed:17129779, PubMed:17446347, PubMed:17475902, PubMed:19389703, PubMed:25504888, PubMed:30858177, PubMed:29344585, PubMed:31494288, PubMed:32893190). Functions at acidic pH via alternate outward- and inward-open conformation states (PubMed:34040256, PubMed:32893190). Protonation of residues in the outward open state primes the protein for transport (PubMed:34040256). Binding of folate promotes breaking of salt bridge network and

Target Details

	subsequent closure of the extracellular gate, leading to the inward-open state and release of protons and folate (PubMed:34040256). Also able to transport antifolate drugs, such as methotrexate and pemetrexed, which are established treatments for cancer and autoimmune diseases (PubMed:18524888, PubMed:19762432, PubMed:25608532, PubMed:28802835, PubMed:29326243, PubMed:34619546, PubMed:34040256, PubMed:22345511). Involved in FOLR1-mediated endocytosis by serving as a route of export of folates from acidified endosomes (PubMed:19074442). Also acts as a lower-affinity, pH -independent heme carrier protein and constitutes the main importer of heme in the intestine (PubMed:17156779). Imports heme in the retina and retinal pigment epithelium, in neurons of the hippocampus, in hepatocytes and in the renal epithelial cells (PubMed:32621820). Hence, participates in the trafficking of heme and increases intracellular iron content (PubMed:32621820). {ECO:0000269|PubMed:17129779, ECO:0000269|PubMed:17156779, ECO:0000269|PubMed:17446347, ECO:0000269|PubMed:17475902, ECO:0000269|PubMed:18524888, ECO:0000269|PubMed:19074442, ECO:0000269|PubMed:19389703, ECO:0000269|PubMed:19762432, ECO:0000269|PubMed:22345511, ECO:0000269|PubMed:25504888, ECO:0000269|PubMed:25608532, ECO:0000269|PubMed:28802835, ECO:0000269|PubMed:29326243, ECO:0000269|PubMed:29344585, ECO:0000269|PubMed:30858177, ECO:0000269|PubMed:31494288, ECO:0000269|PubMed:31792273, ECO:0000269|PubMed:32621820, ECO:0000269|PubMed:32893190, ECO:0000269|PubMed:34040256, ECO:0000269|PubMed:34619546}., FUNCTION: [Isoform 2]: Inactive isoform which is not able to mediate proton-coupled folate transport. {ECO:0000269|PubMed:17129779}.
Molecular Weight:	49.8 kDa
UniProt:	Q96NT5
Pathways:	Transition Metal Ion Homeostasis, Dicarboxylic Acid Transport

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