

Datasheet for ABIN7560062

SLC3A1 Protein (AA 1-685) (His tag)



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Overview

Quantity:	1 mg
Target:	SLC3A1
Protein Characteristics:	AA 1-685
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC3A1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Slc3a1 Protein expressed in mammalian cells.
Sequence:	<p>MDEDKGKRDP IQMSLKGCRN NNGFVQNEDI PEQDPDPGSR DTPQPNVSI PAPEEPHLKA</p> <p>VRPYAGMPKE VLFQFSGQAR YRVPREILFW LTVVSVFLLI GATIAIVIS PKCLDWWQAG</p> <p>PIYQIYPRSF KDSKDKGNGD LKGIQEKLDY ITALNIKTLW ITSFYKSSLK DFRYAVEDFK</p> <p>EIDPIFGTMK DFENLVAAIH DKGLKLIIDF IPNHTSDKHP WFQSSRTRSG KYTDYYIWHN</p> <p>CTHVNGVTTP PNNWLSVYGN SSWHFDEVKQ QCYFHQFLKE QPDNLFRNPA VQEEIKEIIT</p> <p>FWLSKGVDFG SFDVAVKFLLE AKDLRNEIQV NTSQIPDVT HTSELYHDFT TTQVGMHDI</p> <p>RDFRQTMNQY SREPGRYRFM GAEASAESIE RTMMYYGLPF IQEADFPFNK YFTTIGTLSG</p> <p>HTVYEIVTSW MENMPEGKWP NWMTGGPETP RLTSRVGSEY VNAMEHMLLFT LPGTPITYYG</p> <p>EEIGMGDISV TNFNESYDST TLVSKSPMQW DNSSNAGFTE ANHTWLPTNS DYHTVNVVDVQ</p> <p>KTQPSSALRL YQDLSLLHAT ELVLSRGWFC LLRDDSHSVV YTRELDGIDN VFLVVLNFG</p> <p>SSTVLNLQGI ISDLPELRI RLSTNSASKG SAVDTRAIK EKGEGLVLEH STKAPLHQQA</p> <p>AFRDRCFVSS RACYSSALDI LYSSC Sequence without tag. The proposed Purification-Tag is</p>

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.

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:	<p>Key Benefits:</p> <ul style="list-style-type: none">• 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). <p>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.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>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.</p>
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	SLC3A1
Alternative Name:	Slc3a1 (SLC3A1 Products)
Background:	<p>Amino acid transporter heavy chain SLC3A1 (D2) (Neutral and basic amino acid transport protein) (NBAT) (Solute carrier family 3 member 1) (b(0,+)-type amino acid transporter-related heavy chain) (rBAT),FUNCTION: Acts as a chaperone that facilitates biogenesis and trafficking of functional transporter heteromers to the plasma membrane (By similarity) (PubMed:26739563). Associates with SLC7A9 to form a functional transporter complex that mediates the electrogenic exchange between cationic amino acids and neutral amino acids, with a stoichiometry of 1:1. SLC7A9-SLC3A1 transporter has system b(0,+)-like activity with high affinity for extracellular cationic amino acids and L-cystine and lower affinity for intracellular neutral amino acids. Substrate exchange is driven by high concentration of</p>

Target Details

intracellular neutral amino acids and the intracellular reduction of L-cystine to L-cysteine. SLC7A9-SLC3A1 acts as a major transporter for reabsorption of L-cystine and dibasic amino acids across the brush border membrane in early proximal tubules (By similarity). Associates with SLC7A13 to form a functional complex that transports anionic and neutral amino acids via exchange or facilitated diffusion. SLC7A13-SLC3A1 may act as a major transporter for L-cystine in late proximal tubules, ensuring its reabsorption from the luminal fluid in exchange for cytosolic L-glutamate or L-aspartate (PubMed:26739563). {ECO:0000250|UniProtKB:Q07837, ECO:0000269|PubMed:26739563}.

Molecular Weight: 78.1 kDa

UniProt: [Q91WV7](#)

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