Datasheet for ABIN7555391

SLC5A1 Protein (AA 1-664) (His tag)

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Overview

Quantity:	1 mg
Target:	SLC5A1
Protein Characteristics:	AA 1-664
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC5A1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SLC5A1 Protein expressed in mammalian cells.
Sequence:	MDSSTWSPKT TAVTRPVETH ELIRNAADIS IIVIYFVVVM AVGLWAMFST NRGTVGGFFL AGRSMVWWPI GASLFASNIG SGHFVGLAGT GAASGIAIGG FEWNALVLVV VLGWLFVPIY IKAGVVTMPE YLRKRFGGQR IQVYLSLLSL LLYIFTKISA DIFSGAIFIN LALGLNLYLA IFLLLAITAL YTITGGLAAV IYTDTLQTVI MLVGSLILTG FAFHEVGGYD AFMEKYMKAI PTIVSDGNTT FQEKCYTPRA DSFHIFRDPL TGDLPWPGFI FGMSILTLWY WCTDQVIVQR CLSAKNMSHV KGGCILCGYL KLMPMFIMVM PGMISRILYT EKIACVVPSE CEKYCGTKVG CTNIAYPTLV VELMPNGLRG LMLSVMLASL MSSLTSIFNS ASTLFTMDIY AKVRKRASEK ELMIAGRLFI LVLIGISIAW VPIVQSAQSG QLFDYIQSIT SYLGPPIAAV FLLAIFWKRV NEPGAFWGLI LGLLIGISRM ITEFAYGTGS CMEPSNCPTI ICGVHYLYFA IILFAISFIT IVVISLLTKP IPDVHLYRLC WSLRNSKEER IDLDAEEENI QEGPKETIEI ETQVPEKKKG IFRRAYDLFC GLEQHGAPKM TEEEKAMKM KMTDTSEKPL WRTVLNVNGI ILVTVAVFCH AYFA **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity**

Product Details

	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:	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:	SLC5A1
Alternative Name:	SLC5A1 (SLC5A1 Products)
Background:	Sodium/glucose cotransporter 1 (Na(+)/glucose cotransporter 1) (High affinity sodium-glucose cotransporter) (Solute carrier family 5 member 1),FUNCTION: Electrogenic Na(+)-coupled sugar simporter that actively transports D-glucose or D-galactose at the plasma membrane, with a Na(+) to sugar coupling ratio of 2:1. Transporter activity is driven by a transmembrane Na(+) electrochemical gradient set by the Na(+)/K(+) pump (PubMed:20980548, PubMed:35077764, PubMed:8563765, PubMed:34880492). Has a primary role in the transport of dietary monosaccharides from enterocytes to blood. Responsible for the absorption of D-glucose or D-galactose across the apical brush-border membrane of enterocytes, whereas basolateral exit is provided by GLUT2. Additionally, functions as a D-glucose sensor in enteroendocrine cells,

Target Details

	triggering the secretion of the incretins GCG and GIP that control food intake and energy homeostasis (PubMed:8563765) (By similarity). Together with SGLT2, functions in reabsorption of D-glucose from glomerular filtrate, playing a nonredundant role in the S3 segment of the proximal tubules (By similarity). Transports D-glucose into endometrial epithelial cells, controlling glycogen synthesis and nutritional support for the embryo as well as the decidual transformation of endometrium prior to conception (PubMed:28974690). Acts as a water channel enabling passive water transport across the plasma membrane in response to the osmotic gradient created upon sugar and Na(+) uptake. Has high water conductivity, comparable to aquaporins, and therefore is expected to play an important role in transepithelial water permeability, especially in the small intestine. {ECO:0000250|UniProtKB:Q8C3K6, ECO:0000269|PubMed:14695256, ECO:0000269|PubMed:20980548, ECO:0000269|PubMed:26945065, ECO:0000269|PubMed:28974690, ECO:0000269|PubMed:34880492, ECO:0000269|PubMed:35077764, ECO:0000269|PubMed:8563765}.
Molecular Weight:	73.5 kDa
UniProt:	P13866

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