Datasheet for ABIN3112906

SLC5A1 Protein (AA 1-664) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SLC5A1
Protein Characteristics:	AA 1-664
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC5A1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
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 TEEEEKAMKM KMTDTSEKPL WRTVLNVNGI ILVTVAVFCH AYFA

Product Details

	Sequence without tag. The proposed Strep-Tag is based on experience s 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.
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed). • 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. 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. Expression System: • ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. • During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Product Details

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, 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:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

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