Datasheet for ABIN3116628

SLC38A9 Protein (AA 1-561) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	SLC38A9
Protein Characteristics:	AA 1-561
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC38A9 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MANMNSDSRH LGTSEVDHER DPGPMNIQFE PSDLRSKRPF CIEPTNIVNV NHVIQRVSDH ASAMNKRIHY YSRLTTPADK ALIAPDHVVP APEECYVYSP LGSAYKLQSY TEGYGKNTSL VTIFMIWNTM MGTSILSIPW GIKQAGFTTG MCVIILMGLL TLYCCYRVVK SRTMMFSLDT TSWEYPDVCR HYFGSFGQWS SLLFSLVSLI GAMIVYWVLM SNFLFNTGKF IFNFIHHIND TDTILSTNNS NPVICPSAGS GGHPDNSSMI FYANDTGAQQ FEKWWDKSRT VPFYLVGLLL PLLNFKSPSF FSKFNILGTV SVLYLIFLVT FKAVRLGFHL EFHWFIPTEF FVPEIRFQFP QLTGVLTLAF FIHNCIITLL KNNKKQENNV RDLCIAYMLV TLTYLYIGVL VFASFPSPPL SKDCIEQNFL DNFPSSDTLS FIARIFLLFQ MMTVYPLLGY LARVQLLGHI FGDIYPSIFH VLILNLIIVG AGVIMACFYP NIGGIIRYSG AACGLAFVFI YPSLIYIISL HQEERLTWPK LIFHVFIIIL GVANLIVQFF M **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).
Grade:	custom-made

Target Details

Target:	SLC38A9
Alternative Name:	SLC38A9 (SLC38A9 Products)
Background:	Neutral amino acid transporter 9 (Solute carrier family 38 member 9) (Up-regulated in lung cancer 11),FUNCTION: Lysosomal amino acid transporter involved in the activation of mTORC1 in response to amino acid levels (PubMed:25567906, PubMed:25561175, PubMed:29053970). Probably acts as an amino acid sensor of the Rag GTPases and Ragulator complexes, 2 complexes involved in amino acid sensing and activation of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids (PubMed:25567906, PubMed:29053970). Following activation by amino acids, the Ragulator and Rag GTPases function as a scaffold recruiting mTORC1 to lysosomes where it is in turn activated (PubMed:25567906, PubMed:25561175). SLC38A9 mediates transport of amino acids with low capacity and specificity with a slight preference for polar amino acids (PubMed:25561175, PubMed:25567906). Acts as an arginine sensor (PubMed:25567906, PubMed:29053970, PubMed:31295473). Following activation by arginine binding, mediates transport of L-glutamine, leucine and tyrosine with high efficiency, and is required for the efficient utilization of these amino acids after lysosomal protein degradation (PubMed:29053970, PubMed:31295473). However, the transport mechanism is not well defined and the role of sodium is not clear (PubMed:25561175, PubMed:31295473). Can disassemble the lysosomal folliculin complex (LFC), and thereby triggers GAP activity of FLCN:FNIP2 toward RRAGC (PubMed:32868926). Acts as an cholesterol sensor that conveys increases in lysosomal cholesterol, leading to lysosomal recruitment and activation of mTORC1 via the Rag GTPases (PubMed:28336668). Guanine exchange factor (GEF) that, upon arginine binding, stimulates GDP release from RRAGA and therefore activates the Rag GTPase heterodimer and the mTORC1 pathway in response to nutrient sufficiency (PubMed:30181260). {ECO:0000269|PubMed:25561175, ECO:0000269|PubMed:25567906, ECO:0000269|PubMed:28336668, ECO:0000269|PubMed:29053970, ECO:0000269|PubMed:30181260, ECO:0000269|PubMed:31295473, ECO:0000269|PubMed:32868926, ECO:0000305|PubMed:31295473}.
Molecular Weight:	63.8 kDa
UniProt:	Q8NBW4

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

Application Details

	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