Datasheet for ABIN3137382

SLC7A8 Protein (AA 1-531) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SLC7A8
Protein Characteristics:	AA 1-531
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC7A8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MEKGARQRNN TAKNHPGSDT SPEAEASSGG GGVALKKEIG LVSACGIIVG NIIGSGIFVS PKGVLENAGS VGLALIVWIV TGIITAVGAL CYAELGVTIP KSGGDYSYVK DIFGGLAGFL RLWIAVLVIY PTNQAVIALT FSNYVLQPLF PTCFPPESGL RLLAAICLLL LTWVNCSSVR WATRVQDIFT AGKLLALALI IIMGIVQICK GEFFWLEPKN AFENFQEPDI GLVALAFLQG SFAYGGWNFL NYVTEELVDP YKNLPRAIFI SIPLVTFVYV FANIAYVTAM SPQELLASNA VAVTFGEKLL GVMAWIMPIS VALSTFGGVN GSLFTSSRLF FAGAREGHLP SVLAMIHVKR CTPIPALLFT CLSTLLMLVT SDMYTLINYV GFINYLFYGV TVAGQIVLRW KKPDIPRPIK VSLLFPIIYL LFWAFLLIFS LWSEPVVCGI GLAIMLTGVP VYFLGVYWQH KPKCFNDFIK SLTLVSQKMC VVVYPQEGNS GAEETTDDLE EQHKPIFKPT PVKDPDSEEQ P **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:	SLC7A8
Alternative Name:	Slc7a8 (SLC7A8 Products)
Background:	Large neutral amino acids transporter small subunit 2 (L-type amino acid transporter 2) (mLAT2) (Solute carrier family 7 member 8),FUNCTION: Associates with SLC3A2 to form a functional heterodimeric complex that translocates small and large neutral amino acids with broad specificity and a stoichiometry of 1:1 (PubMed:10574970). Functions as amino acid antiporter mediating the influx of extracellular essential amino acids mainly in exchange with the efflux of highly concentrated intracellular amino acids. Has relatively symmetrical selectivities but strongly asymmetrical substrate affinities at both the intracellular and extracellular sides of the transporter. This asymmetry allows SLC7A8 to regulate intracellular amino acid pools (mM concentrations) by exchange with external amino acids (uM concentration range), equilibrating the relative concentrations of different amino acids across the plasma membrane instead of mediating their net uptake. May play an essential role in the reabsorption of neutral amino acids from the epithelial cells to the bloodstream in the kidney. Involved in the uptake of methylmercury (MeHg) when administered as the L-cysteine or D,L-homocysteine complexes, and hence plays a role in metal ion homeostasis and toxicity. Involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L-nitrosocysteine (L-CNSO) across the transmembrane (By similarity). Imports the thyroid hormone diiodothyronine (T2) and to a smaller extent triiodothyronine (T3) but not rT 3 or thyroxine (T4) (PubMed:26601072, PubMed:28108384). Mediates the uptake of L-DOPA (By similarity). May participate in auditory function (PubMed:29355479). {ECO:0000250|UniProtKB:Q9UHI5, ECO:0000250|UniProtKB:Q9WVR6, ECO:0000269|PubMed:10574970, ECO:0000269|PubMed:26601072, ECO:0000269|PubMed:28108384, ECO:0000269|PubMed:29355479}.
Molecular Weight:	57.9 kDa
UniProt:	Q9QXW9

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.
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

Application Details

	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